

<p>Principal Dr.Sanjay Nagarkar M.A.,M. Phil. SET, Ph.D.</p>	<p>Estd: 1964</p> <p>Rayat Shikshan Sanstha's</p> <p>DADA PATIL MAHAVIDYALAYA</p> <p>Karjat, Dist A'nagar- 414402 (M.S.)</p> <p>Arts, Science & Commerce</p> <p>FOUNDER:-Padmabhushan Dr.Karmaveer Bhaurao Patil</p>	<p>ACCREDITED BY NAAC</p> <p>"A" Grade (CGPA 3.07)</p> <p>Jr. College HSC J12.03.001 Board Code No. PU/AN/ASC/06/1964 STD Code : (02489) office : 222534 Fax : 223923</p>											
	<p>Clarification for Metric No. 3.1.1</p> <p>Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)</p> <p>3.1.1.1. Total Grants from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)</p> <p>This is to declare and inform you that the HEI is continuously enhancing the standard of research by implementing quality policy decisions. The College Development Committee has unanimously decided to promote and provide financial support to enhance the research culture. This has contributed for the overall upliftment of the HEI.</p> <p>There is a shrinking for the release of the research and other grants due to changing policies of the Central research funding agencies and Government. Therefore, very few teachers are getting the benefit of research grants in this cycle. Parallely, the HEI has proactively initiated to provide financial assistance and other research facilities from its own corpus fund as an endowment besides support of NGOs to the budding researchers under the separate budget head of 'Seed Money'. Throughout this cycle, the HEI has contributed for the promotion of research and development sincerely in absence of grants from funding agencies.</p> <p><u>Therefore, we humbly request you to consider the proactive approach of the HEI in the promotion of research by by providing seed money for validating the inputs.</u></p> <table border="1"> <thead> <tr> <th>Academic Year</th> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>Amount in Lakhs</td> <td>13.42</td> <td>2.66</td> <td>3.65</td> <td>2.13</td> <td>11.73</td> </tr> </tbody> </table> <p>Enclosure: 1. Copy of the resolution of College Development Committee 2. Policy for Providing Financial Assistance/ Support for Research and Innovation 3. Sanction letters and supportive documents</p> <p style="text-align: right;"> PRINCIPAL Dada Patil Mahavidyalaya Karjat, Dist. Ahmednagar </p>		Academic Year	2021-22	2020-21	2019-20	2018-19	2017-18	Amount in Lakhs	13.42	2.66	3.65	2.13
Academic Year	2021-22	2020-21	2019-20	2018-19	2017-18								
Amount in Lakhs	13.42	2.66	3.65	2.13	11.73								

 <p>Principal Dr. Sanjay Nagarkar M.A., M. Phil., SET, Ph.D.</p>	<p style="text-align: right;">Estd: 1964</p> <p style="text-align: center;">Rayat Shikshan Sanstha's</p> <p style="text-align: center;">DADA PATIL MAHAVIDYALAYA</p> <p style="text-align: center;">Karjat, Dist A'nagar- 414402 (M.S.)</p> <p style="text-align: center;">Arts, Science & Commerce</p> <p style="text-align: center;">FOUNDER:-Padmabhushan Dr.Karmaveer Bhaurao Patil</p>	<p style="text-align: center;">ACCREDITED BY NAAC</p> <p style="text-align: center;">"A" Grade (CGPA 3.07)</p> <p>Jr. College HSC J12.03.001 Board Code No. PU/AN/ASC/06/1964 STD Code : (02489) ☎ office : 222534 Fax : 223923</p>
---	---	---

Clarification for Metric No. 3.1.1
INTERNAL QUALITY ASSURANCE CELL & RESEARCH AND DEVELOPMENT CELL
**Policy for Providing Financial Assistance/
Support for Research and Innovation**

PREAMBLE:


As per the U.G.C. policy, the faculty are to be updated and adopt the recent trends in their respective fields. I.Q.A.C. is committed to promote and sustain the innovations in the field of knowledge adhering to the set policy. The policy provides standard norms for attending seminar/conferences/ workshops/ symposia to develop subject related and research skills. The Management also takes initiative to provide conducive environment by providing suitable infrastructural facilities, financial assistance and other allied support such as library, e- resources, plagiarism check software, seed money, lab facilities and funding for minor research projects based on the educational merit of the proposed research.

STAKEHOLDERS:

1. All the faculty who wish to pursue research and attend seminar/conferences/ workshops/ symposia within a country or abroad.
2. All the students who are engaged in research as part of their curriculum.
3. Faculty who are engaged with research projects funded by any other national or international funding agency or host college.

PROCEDURE/ TERMS AND CONDITIONS:

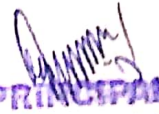
1. The faculty can claim the reimbursement of travelling (to and fro) and dearness allowance with registration fees at the time of attending the seminar/conferences/ workshops/ symposia.
2. The faculty should present a research paper/poster/plenary talk or chair the session in the particular seminar/conferences/ workshops/ symposia.
3. The faculty should submit the receipts of the bills in original to claim the reimbursement.


PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar

 <p>Education through self-help is our motto</p> <p>Principal Dr.Sanjay Nagarkar M.A.,M. Phil. SET, Ph.D.</p>	<p>Estd: 1964</p> <p>Rayat Shikshan Sanstha's</p> <p>DADA PATIL MAHAVIDYALAYA</p> <p>Karjat, Dist A'nagar- 414402 (M.S.)</p> <p>Arts, Science & Commerce</p> <p>FOUNDER:-Padmabhushan Dr.Karmaveer Bhaurao Patil</p>	<p>ACCREDITED BY NAAC</p> <p>"A" Grade (CGPA 3.07)</p> <p>Jr. College HSC J12.03.001</p> <p>Board Code No.</p> <p>PU/AH/ASC/06/1964</p> <p>STD Code : (02489)</p> <p>☎ office : 222534</p> <p>Fax : 223923</p>

4. The receipts should be submitted within 10 working days after last day of the seminar/conferences/ workshops/ symposia.
5. The reimbursement shall be paid to particular faculty in 3 working days after the submission of the expenditure.
6. The reimbursement should be claimed once only.
7. The equipments/ glass wares/ consumables should be returned to the college and recorded in the stock register.
8. The seed money be provided (70 % + 30 % i.e. in two installments) to the selected faculty every year after successful presentation of the proposal before Research and Development Cell.
9. The amount of seed money be extended up to 5% to 10 % of the total amount sanctioned on demand of the researcher after valid clarification and proofs in support of demand in first month only, if needed.
10. The expenditure and accounts be audited by the certified auditor before the end of the same financial year.
11. In case of the failure in completion of the project, the faculty should remit the total amount credited to his account before the end of the financial year.
12. The quality publications be made as per the guidelines of research and Development Cell time to time as specified under quality research ethics
13. A Completion Certificate and No Dues Certificate be awarded to the researcher on successful completion of the project.
14. The decisions related to finance and implementation abide by the Research and Development Cell will be applicable to all researchers time to time.

(With reference to the University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations, 2018. dated 23rd July, 2018 (F. 1-18 / 2010 (CPP- II) and Savitribai Phule Pune University, Pune Circular No. 175/2018. Reference No. PGS/3838 dated 27th September, 2018)


PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar



ठराव नं. १८ (३) - वरील सर्व सेवकांना फेब्रुवारी, २०२१ पासून त्यांचे नांवासमोर दर्शविल्याप्रमाणे मानधन अदा करण्यास मान्यता देण्यात येत आहे. सर्व संबंधितांना तात्पुरत्या स्वरूपात शे.वर्ष २०२०-२१ साठी नियुक्त करणेस व मानधन अदा करण्यास मान्यता आहे, मात्र त्यांना भविष्यात संबंधित जागांवर कायमस्वरूपी नोकरीसाठी दावा करता येणार नाही, याची सर्व संबंधितांना सूचना देण्यात यावी.

सर्वानुमते मंजूर --

ऐनवेळचा विषय क्र. ४ - बी.एस्सी कॉम्प्युटर (BCS) विभागासाठी स्वतंत्र प्रयोगशाळा तयार करणे.

स्पष्टीकरण - महाविद्यालयात चालू असलेल्या बी.एस्सी कॉम्प्युटर (BCS) विभागासाठी स्वतंत्र प्रयोगशाळा तयार करावयाची आहे. नॅक च्या पुढील पूनर्मुल्यांकनासाठी सदरची स्वतंत्र प्रयोगशाळा असणे गरजेचे आहे. स्वतंत्र प्रयोगशाळा तयार करणेसाठीचा अंदाजे खर्च खालीलप्रमाणे आहे.

- (१) संगणक खरेदी (३० नग) - रु. १०,००,०००/- (२) संगणक टेबल (१० नग) - रु. १,५०,०००/-
 (३) प्रयोगशाळा फर्निचर - रु. ३,००,०००/- (४) बॅटरी/इन्व्हर्टर रु. १,५०,०००/-
 (५) लॅनिंग व इंटरनेट रु. १,२५,०००/- (६) इलेक्ट्रीक फिटिंग - रु. ५०,०००/-
 (७) खुर्च्या खरेदी - रु. ५०,०००/- (८) स्लार्याडिंग विंडो - ७५,०००/-
 (९) रंगकाम - रु. ७५,०००/- (१०) कारपेट - रु. २५,०००/- एकूण रु. २०,००,०००/-

ठराव नं. १८ (४) - बी.एस्सी कॉम्प्युटर (BCS) विभागासाठी स्वतंत्र प्रयोगशाळा तयार करण्यास व त्यासाठी येणा-या खर्चास मान्यता देण्यात येत आहे.

सदरची प्रयोगशाळा तयार करताना प्रत्येक बाबीचे प्लॅन/इस्टिमेटस तयार करून संस्थेची पूर्व परवानगी घेऊन संबंधित काम करावे.

सर्वानुमते मंजूर ---

ऐनवेळचा विषय क्र. ५ - स्पर्धा परीक्षा मार्गदर्शन केंद्र (जुना जिमखाना विभाग) इमारत पाडण्यास परवानगी बाबत.

स्पष्टीकरण - महाविद्यालयात शारदाबाई पवार या नवीन सभागृहाचे बांधकाम चालू आहे. या सभागृहाच्या समोरच ही इमारत येत आहे. ही इमारत पाडून त्याठिकाणी सभागृहासाठीचे व्हेईकल पार्किंग करावयाचे आहे. त्यासाठी या इमारतीचे पाडकाम करण्यास महाविद्यालय विकास समितीची मंजूरी मिळणे बाबत

ठराव नं. १८ (५) - स्पर्धा परीक्षा मार्गदर्शन केंद्र (जुना जिमखाना विभाग) इमारत पाडण्यास व त्यासाठी येणा-या खर्चास मान्यता देण्यात येत आहे. इमारत पाडण्याचा प्रस्ताव संस्थेकडे पाठवून संस्था परवानगी घेऊन नंतरच सदरचे पाडकाम करावे.

सर्वानुमते मंजूर ---

✓ **ऐनवेळचा विषय क्र. ६- सीड मनी प्रोजेक्ट अंतर्गत शिक्षकांना अनुदान मंजूरीस मान्यता मिळणे बाबत**

नॅक पूनर्मुल्यांकन प्रक्रियेचा एक भाग म्हणून महाविद्यालयात कार्यरत शिक्षकांना विविध विषयांसाठी संशोधनाला चालना मिळणेसाठी विद्यापीठ पातळीवर महाविद्यालयाने तज्ञ समिती तयार केली. दिनांक ३ फेब्रुवारी २०२१ रोजी या तज्ञ समितीने गुणवत्तेच्या आधारावर खालील शिक्षकांची संशोधन प्रकल्पासाठी (Seed Money Project) निवड केली असून त्यांचे नांवासमोर दर्शविल्याप्रमाणे त्यांना अनुदान मंजूर केले आहे.

सदर शिक्षकांसाठी मंजूर केलेल्या अनुदान खर्चास महाविद्यालय विकास समितीची मान्यता मिळणे बाबत.

अ.नं.	शिक्षकाचे नांव	विषय/विभाग	संशोधन प्रकल्पाचा विषय	मंजूर रक्कम
१	प्रा.बी.जी.यादव	वाणिज्य	कर्जत तालुक्यातील डाळींब उत्पादकांच्या समस्यांचा अभ्यास	१००००/-
२	प्रा.एस.के.सुर्यवंशी	वाणिज्य	कर्जत तालुक्यातील कुक्कुटपालन व्यावसायिकांच्या समस्यांचा अभ्यास	६०००/-
३	डॉ.एपी.इंगळे	रसायनशास्त्र	Development of Catalist-free & Solvant-free Meythodology for Synthesis of Organic Chemistry	१५०००/-
४	डॉ.व्ही.एस.कापसे	रसायनशास्त्र	The synthesis & Characterization & Biological Predication study of 5-methyl-2,1,3' triphenyl-2H,1'H(3,4')bipyrazolyl darivatives	१००००/-
५	प्रा.सौ.एम.आर.गुळवे	भूगोल	Delination of Saline Lands using Soil Adjusted Vegetation Indices (SAVI) for Shrigonda Taluka, Dist.Ahmednagar	१५०००/-

PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar


अ.नं.	शिक्षकाचे नांव	विषय/विभाग	संशोधन प्रकल्पाचा विषय	मंजूर रक्कम
६	डॉ.एस.ज.लगड	भूगोल	Systematic Analysis of Swachha Survekshan Abhiyan 2020-21- A Case study of Karjat City	१५०००/-
७	प्रा.आर.डी.काळे	इंग्रजी	Significance of Aging & Memory	१००००/-
८	प्रा.व्ही.एस.आसवले	भूगोल	A Geographical Study of Concentration of Tribal Population & Literary in Akole Tahsil, Dist.Ahmednagar (MS)	८०००/-
९	प्रा.डी.एस.कुंभार	प्राणीशास्त्र	Assessment of Wetland Avifaunal Diversity from Different Lakes in Karjat Tahsil (Ahmednagar), Maharashtra, India	१५०००/-
१०	डॉ.पी.ए.पवार	प्राणीशास्त्र	Temperature as a driver affecting life cycle of Butterflies	१५०००/-
११	डॉ.ए.एस.म्हस्के	गणित	Fuzzy Transportation Problem Using Fuzzy Number & Fuzzy Random Numbers	१३०००/-
१२	डॉ.पी.एन.नागणे	वनस्पतीशास्त्र	Qualitative Analysis of Common Mangroves	१५०००/-
१३	डॉ.ए.बी.कदम	वनस्पतीशास्त्र	Phytochemical Screening of Seed Abstract of Crotalaria Juncea with Respect To Antifertility Agents	१५०००/-
१४	प्रा.बी.एस.महारनवर	भौतिकशास्त्र	Effect of Nd3+ doping of structural & magnetic properties of CoxNi1-xNd4Fez-yO4 nanocrystalline ferrites synthesis by sol-gel auto combustion	१६०००/-
१५	प्रा.ए.बी.सोनवणे	मराठी	कर्जत तालुक्यातील निवडक आंबेडकरी गीतकारांच्या गीतांचा अभ्यास	२००००/-
१६	प्रा.के.ओ.वसावे	इंग्रजी	An Introduction to the Study of Connected Speech in English	१५०००/-
१७	डॉ.पी.बी.परदेशी	हिंदी	२१ वी सदी के हिंदी उपन्यासोंमें चित्रित परिवर्तित नारी-जीवन मूल्य	१५०००/-
१८	प्रा.आर.बी.साळुंके	बी.बी.ए.	Recent Trends in Web Development-2021	१००००/-
१९	प्रा.पी.डी.खाडे	बी.बी.ए.	Python Programming- Applications and Future	१२०००/-
२०	प्रा.जी.व्ही.बुरटे	बी.सी.एस.	Impact of Artificial Intelligence on Teaching & Learning in Higher Education	१००००/-
२१	प्रा.एल.पी.अनारसे	बी.सी.एस.	Cyber Crime & Cyber Security Techniques	६०००/-
एकूण रक्कम रु.				२,६६०००/-

ठराव नं. १८ (६) - वर नमूद शिक्षकांना संशोधन प्रकल्पासाठी (Seed Money Project) मंजूर केलेले अनुदान अदा करण्यास मान्यत्वा देण्यात येत आहे. सर्व संबंधित शिक्षकांकडून अदा केलेल्या अनुदानाचे उपयोगिता प्रमाणपत्रे वेळेत मिळवावीत. तसेच संबंधितांचे संशोधन प्रकल्प जास्तीत जास्त जर्नल्समध्ये प्रसिध्द करणेबाबत संबंधितांना सूचना द्याव्यात. **सर्वानुमते मंजूर ---**

ऐनवेळचा विषय क्र. ७- वीज-पाणी या बाबींसाठी महाविद्यालय स्वयंपूर्ण करणे बाबत

महाविद्यालयाची वीजेची गरज भागविणेसाठी तसेच पावसाचे वाया जाणारे पाणी साठवून त्याचा उपयोग करणे बाबत. **ठराव नं. १८ (७) -** महाविद्यालयाची वीजेची गरज भागविणेसाठी भविष्यात आणखी सौरउर्जा प्रकल्प निर्माण करावा त्यातून महाविद्यालयाची वीजेची गरज भागवून उरलेली वीज महावितरणला देणेसाठी प्रयत्न करावेत. तसेच महावितरण कडून येणारे वीजबील शून्य असेल इतपत वीजेची तजवीज करावी. पावसाचे वाया जाणारे पाणी साठवून त्याचा उपयोग करणेसाठी भूमीगत हौद बांधून सदरचे पाणी साठवून त्याचा महाविद्यालयासाठी वापर यकरणेबाबत प्रयत्न करावेत.

सर्वानुमते मंजूर ---


Principal
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

विषय क्र. ५ :- सीड मनी अंतर्गत तरतुदीनुसार प्रोत्साहनपर संशोधन निधीला मान्यता घेणे.

ठराव क्र. १० :- नैकच्या तिसऱ्या कायदेरियामधील संशोधन प्रकल्प (रिसर्च प्रोजेक्ट) साठी प्राध्यापकांना सीड मनी प्रकल्प संशोधन समितीने व विद्यार्थ्यांना महाविद्यालयाने प्रोत्साहित करण्यासाठी महाविद्यालयात सीड मनी अंतर्गत विविध विषयाच्या प्राध्यापकांना व विद्यार्थ्यांना प्रकल्पासाठी खालील प्रमाणे रकमा प्राध्यापकांना देण्यास मान्यता देण्यात आली.

Tentative Sanction Amount

Sr. No.	Name	Department	Sanction Amount
1	Mr. Mhaske Swapnil D.	Commerce	13000
2	Mr. Suryawanshi Sharad K.	Commerce	12000
3	Mr. Mandlik Akshay S.	Commerce	11000
4	Dr. Bhondave Angad H.	Economics	14000
5	Mr. Kale Ramkrushna D.	English	13000
6	Mr. Gangarde Mahendrakumar V	English	10000
7	Mr. Toradmal Agastirishi B	Geography	14000
8	Ms. Salave Rohini R.	Hindi	11000
9	Mr. Rajguru Gautam D.	History	10000
10	Dr. Kale Bharati M.	Marathi	11000
11	Smt. Todmal Shilpa Y.	Computer Science	16000
12	Mr. Waghmare Sagar G.	Mathematics	14000
13	Mr. Nalavade Amit A.	Mathematics	14000
14	Mr. Pansare Tushar D.	Botany	12500
15	Mr. Patil Naresh K.	Botany	15000
16	Dr. Vadavkar D. S.	Botany	17000
17	Mr. Patil Shripad M.	Chemistry	17000
18	Mr. Suryawanshi Ganesh D.	Chemistry	15500
19	Dr. Sonawane Digvijay V.	Chemistry	16000
20	Mr. Pandit Vishal K.	Physics	17000
21	Mr. Pardeshi Amol R.	Physics	17000
22	Ms. Bedre Ashvini V.	Zoology	17000
23	Ms. Kulkarni Trupti C.	Zoology	15000
24	Ms. Shaikh M. I.	Zoology	15000
Total			337000/-

Academic Research Committee SEED MONEY Proposal List (UG/PG Students)

Date: 03.03.2022

Sr. No	Name	Class	Department	Title of the Project	Funds Requirement
1	Miss. Kale Shubhangi B.	T.Y.B.Sc	Mathematics	Detection of Fake News by using Machine Learning	5500/-

(Signature)
PRINCIPAL

Dada Patil Mahavidyalaya
Khat, Dist. Ahmednagar



2	Mr. Anbhule Pavan P.	T.Y.B.Sc	Mathematics	Track Phone Number Location by Using Python	5000/-
3	Mr. Sarode Tejas Kailas	M.Sc-II	Zoology	Comparative Study of Physio-Chemical Parameters of Milk of Different Domesticates Cow, Buffalo, and Goat Breeds from Karjat Tehsil, Ahmednagar District, Maharashtra, India	5425/-
4	Mr. Kumbhar Sagar L.	M.Sc-II	Physics	Study of Structural, Morphological and Optical Properties of Cobalt Ferrite Nanoparticles	5000/-
5	Ms. Gangarde Sakshi S. Ms. Farande Varsha G.	T.Y.B.Sc	Physics	Synthesis of ZnO NPs by using Azadirachta Indica (NEEM) gum and study of its Antibacterial Activity	5000/-
5	Mr. Bagal Amrut M.	T.Y.B.Sc	Zoology	Assessment of Avian Faunal Diversity from Dada Patil Mahavidyalaya Karjat, Dist-Ahmednagar, India	5000/-
6	Ms. Pathade Rukmini B.	M.Sc-I	Botany	Antifungal Properties of Plant and its useful effects on serial crops	5500/-
7	Ms. Kachare Sonali S.	M.Sc-I	Botany	Effete of Biopestisides on Agricultural Crops	5000/-
8	Ms. Shelar Rrutuja R.	T.Y.B.Sc	Zoology	Assessment of Entomological Diversity from Dada Patil Mahavidyalaya, Karjat Tehsil, Ahmednagar District, Maharashtra, India.	5000/-
Total					46,425/-

सर्वानुमते मंजूर . . .

विषय क्र. ६ :- सेमिनार कॉन्फरन्समध्ये प्राध्यापकांचा सहभाग वाढविण्यासाठी प्रोत्साहनपर निधी उपलब्ध करून देण्यास मंजुरी घेणे.

ठराव क्र. ११ :- नॅकच्या सहाय्या क्रायटेरियात प्राध्यापकांना विविध चर्चासत्रासाठी जाणे, संशोधन पेपर सादर करणे या बाबीसाठी महाविद्यालयाने प्रोत्साहनपर निधी उपलब्ध करून देण्याबाबत काही गुण आहेत. ते गुण मिळविण्यासाठी प्रती प्राध्यापकास रु. २,०००/- देण्यास सर्वानुमते मान्यता देण्यात आली.

सर्वानुमते मंजूर . . .

विषय क्र. ७ :- महाविद्यालयाचा परिसर व बाग या ठिकाणी वेळोवेळी पडणारा पालापाचोळा गोळा करण्यासाठी कचरा वेचक गाडी (व्हाक्युम क्लिनर) खरेदी करण्यास व त्यासाठी येणाऱ्या खर्चास परवानगी घेणे.

ठराव क्र. १२ :- महाविद्यालयाचा परिसर तसेच विविध इमारतीच्या अवतीभोवती पर्यावरण पुरक विविध झाडे लावलेली आहेत. या झाडांचा पालापाचोळा सातत्याने मोठ्या प्रमाणात पडत असतो. महाविद्यालयाचा परिसर दिवसातून एकदा स्वच्छ केला जातो. परंतु दिवसभर सतत पालापाचोळा पडतो. 'स्वच्छ परिसर व सुंदर परिसर' ही महाविद्यालयाची वेस्ट प्रॅक्टिस आहे. सदरील पालापाचोळा गोळा करण्यासाठी बॅटरीवर चालणारी कचरावेचक गाडी खरेदी करण्यास व त्यासाठी येणाऱ्या रु. १,००,०००/- खर्चास सर्वानुमते मान्यता देण्यात आली.

सर्वानुमते मंजूर . . .


 Dada Patil Mahavidyalaya
 Kariat, Dist. Ahmednagar

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2021-22

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Sr. No.	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/ non-Government)
1)	The Co-Immobilization Of Saccharification Enzymes Using ANovel Nanohybrid Based Nanobiocatalytic System For TheSustainable Bioethanol Production	Dr. Sandeep Pai	Botany	2022	10,22,213	2 years	ICMR, New Delhi	Government
2)	श्रीगोंदातालुक्यातीलकापूसउत्पादकांचाअभ्यास	Mr. Mhaske Swapnil D.	Commerce	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
3)	कर्जततालुक्यातीलदूधसंकलनकेंद्राचाचिकित्सकअभ्यास	Mr. Suryawanshi Sharad K.	Commerce	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
4)	कर्जततालुक्यातीलविविधमहिलाबचतगटांचाअभ्यास	Mr. Mandlik Akshay S.	Commerce	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
5)	Trade Relation Between India and Ukrain-2016-17 to 2020-21.	Dr. Bhondave Angad H.	Economics	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government

6)	Impact of Historical Past on the characters in Julian Barne's novel 'The sense of an Ending'	Mr. Kale Ramkrushna D.	English	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
7)	Visual Representation from Different Perspectives in the Selected Novels of Jai Nimbkar and Jyoti Arora	Mr. GangardeMahendraku mar V	English	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
8)	इक्कीसवीसदीकिकहानियोंकिविशेषताए	Ms. Salave Rohini R.	Hindi	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
9)	खर्डाकिल्याचाइतिहास	Mr. Rajguru Gautam D.	History	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
10)	प्रा. डॉ. एन. डी. पाटीलयांचेशैक्षणिकवराजकीयक्षेत्रातीलयोगदान	Dr. Kale Bharati M.	Marathi	2022	10000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
11)	Assessment of Ground Water Level Fluctuation in Karjat Tehsil in Ahmednagar District of Maharashtra State using GIS techniques.	Mr. ToradmalAgastirishi B	Geography	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
12)	New Ring and Vector Space structure of compatible system of First order Partial Deferential Vector	Mr. Waghmare Sagar G.	Mathematics	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government

13)	Fuzzy Game Theory Problem using Numbers and Fuzzy Random Numbers	Mr. Nalavade Amit A.	Mathematics	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
14)	Screening of Medicinally Important Wild Plant Species from Karjat	Mr. Pansare Tushar D.	Botany	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
15)	Allelopathic Effect of Boerhavia Erecta on Germination of Parthenium Hysterophorus	Mr. Patil Naresh K.	Botany	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
16)	Phytochemical Screening and Biochemical Analysis of Lecuas Urtification (VAHL) SM. Medicinal Plant	Dr. D. S. Wadavkar	Botany	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
17)	Magnetically Recyclable silica-coated ferrite magnetite-molybdate (Nanocat-Fe-Si-Mo) and its Applications in the reductive amination of carbonyl compound under the benign condition.	Mr. Patil Shripad M.	Chemistry	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
18)	Studies on Physio-Chemical Parameters in ground water around Ambalika Sugar Factory	Mr. Suryawanshi Ganesh D.	Chemistry	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government
19)	Biosynthesis, Characterization and Application of Metal Nano Particles Using Plant Extract	Dr. Sonawane Digvijay V.	Chemistry	2022	15000	1 year	Seed Money, Dada Patil Mahavidyala ya, Karjat	Non-Government

20)	Study of Galvanostatically Electrodeposited Polypyrrole and their Physical Properties	Mr. Pandit Vishal K.	Physics	2022	15000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
21)	Synthesis and Characterization of Graphene Oxide Nanoparticles for Super capacitor Application	Mr. Pardeshi Amol R.	Physics	2022	15000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
22)	Comparative Study of Biochemical Analysis of Protein, Carbohydrate and Lipid Contain of Inland and Exotic Fish Species from Bhima River, Maharashtra, India	Ms. BedreAshvini V.	Zoology	2022	15000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
23)	Effects of High Frequency Radiation from 4G Cell Phone on Some Biochemical and Morphological Aspects of Developing Chick Embryo (Gallus gallus)	Ms. Kulkarni Trupti C.	Zoology	2022	15000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
24)	“A STUDY OF SEASONAL VARIATION IN ZOOLPLANTON DIVERSITY IN UJANI RESERVOIR, BHIGWAN (M.S.) INDIA”	Ms. Shaikh Mawiyazan Imran	Zoology	2022	15000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
25)	Probable Impact of Shardabai Pawar Auditorium on Cultural Development	Dr. Santosh J. Lagad	Geography	2022	20000	1 year	CSR Funds M/S Bajarangbali Construction	Non-Government
Total Amount								13,42,213/-



Indian Council of Medical Research (ICMR)

Department of Health Research
(Ministry of Health and Family Welfare)

Online application of ICMR Adhoc Project Program detailed proposal

Date of submission: 15-Dec-2021 08:58:27 PM

Proposal Id: 2021-10581, **Version Id:** F1, **Proposal Title:** Chlorophyllin Nano hybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination

Personal Details of PI

Name of PI (IN BLOCK LETTERS)	DR UMESH UTTAMRAO JADHAV	Designation	Assistant Professor
Email	UMESHJADHAV02@GMAIL.COM	Contact	7218921018
Date of Birth	02-Dec-1981	Date of Superannuation	06-Nov-2040
Nature of Employment	Permanent	Institute	Savitribai Phule Pune University

Proposal Details

Advertisement	CALL FOR RESEARCH PROPOSALS OF AD-HOC PROJECT UNDER EXTRAMURAL RESEARCH PROGRAM OF ICMR FOR THE YEAR 2021	Title of the Research Proposal	Chlorophyllin Nano hybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination
Institute Type	Govt	Valid DSIR Certificate (Validity)	YES (31-Aug-2025)
Broad Area	Basic Medical Science	Major Discipline	NANOTECHNOLOGY AND NANOMEDICINE
Detailed Proposal	1639577282_1798942088.pdf View		
Project Duration (in Months)	24 Months	Data Collection/Analyzing Data (in Months)	16/8 Months
Objective of Study	<ul style="list-style-type: none"> • Synthesis and characterization of photo-active chlorophyllin nano hybrid • In vitro study of antimicrobial activity of chlorophyllin nano hybrid against food pathogens • Understanding the mechanisms of pathogen killing • Application of chlorophyllin nano hybrid for decontamination of fresh-cut produce 		
Expected Outcome	At present the available FCP disinfectant are either chlorine or plant extract based and no product is available in Indian market based on photo-active nano hybrid. Such product will help to remove fear from common people's mind regarding toxicity and other ill effects and encourage them to use it. The increased use of such product will help to stop food-borne pathogen outbreak and help to develop a disease free, healthy community. This is very important in current pandemic situation where the public health care system is about to break and other diseases remain neglected.		
Ethical Clearance	no	Participating Agencies (Project Type)	2 (Collaboration)
Fund received by ICMR before	N	Fund received by Other Agency before	Y

Investigator Details

#	Name	Institute	Designation	Email	Contact No.	Role in Proposal
---	------	-----------	-------------	-------	-------------	------------------

Investigator Details

#	Name	Institute	Designation	Email	Contact No.	Role in Proposal
1	Dr Umesh Uttamrao Jadhav	Savitribai Phule Pune University	Assistant Professor	umeshjadhav02@gmail.com	7218921018	PI
2	Dr Shweta Jagtap	Savitribai Phule Pune University	Assistant Professor	shweta.jagtap@gmail.com	9922962391	Co-PI
3	Dr Sandeep Ramchandra Pai	Dada Patil Mahavidyalaya	Assistant Professor	drpaisr@gmail.com	9036762911	Co-PI

Documents consideration

#	Proposal Id	Document Name	Is Applicable?	Uploaded Document	Remarks
1	2021-10581	Declaration & Attestation Form(duly signed by Head of Department/ Director)	Yes	View uploaded document	Declaration and attestation file
2	2021-10581	Non submission to other agency	Yes	View uploaded document	Non submission to other agency file
3	2021-10581	Undertaking of Proposal limits	Yes	View uploaded document	Undertaking of proposal limits file
4	2021-10581	Certificate of previous ICMR Project	Yes	View uploaded document	Certificate of previous ICMR project file
5	2021-10581	Research Experience of PI during last 10 years	Yes	View uploaded document	Research experience of PI file
6	2021-10581	Undertaking from Institute	Yes	View uploaded document	Undertaking from institute file
7	2021-10581	Non-availability Equipment Form(applicable when you are asking equipment grant)	Yes	View uploaded document	It is for nonavailability of equipment
8	2021-10581	Justification of Staff, Equipment, Contingency and Travel Allowance	Yes	View uploaded document	This is for staff, equipment and travel grant justification
9	2021-10581	Scientific and Industrial Research Organisation (SIRO) OR Department of Scientific and Industrial Research (DSIR) Certificate (for NGO/Private Institutions only)	Yes	View uploaded document	This is for DSIR certificate
10	2021-10581	Mandate Form(duly signed by account officer)	Yes	View uploaded document	This is for mandate form
11	2021-10581	Institutional Ethics Committee (Human)	Yes	View uploaded document	This is for ethical clearance certificate
12	2021-	A certificate to the effect that no utilization certificate/final report is pending for	Yes	View	This is for nutilization

Budget Details

Year	Institute Name	Manpower	Contingency	Equipment	Travel	Overhead Charges	Total Budget (Rs.)
Year:1	Savitribai Phule Pune University	461,280.00	1,250,000.00	0.00	50,000.00	50,160.00	1,811,440.00
Year:2	Savitribai Phule Pune University	461,280.00	1,250,000.00	0.00	50,000.00	50,160.00	1,811,440.00
Total(Rs.):		922,560.00	2,500,000.00	0.00	100,000.00	100,320.00	3,622,880.00

Budget Breakup Details (Staff/Manpower)

#	Budget Year	Institute	Designation	No. of Person(nos)	Require Month(nos)	Cost Per Person(Rs.)	Total Cost(Rs.)
1	Year: 1	Savitribai Phule Pune University	Junior Research Fellow	1	12	31,000	461,280.00
2	Year: 2	Savitribai Phule Pune University	Junior Research Fellow	1	12	31,000	461,280.00
						Total (Rs.):	922,560.00

Budget Breakup Details (Contingency)

#	Budget Year	Institute	Contingency Name	Total Cost(Rs.)	Justification
1	Year: 1	Savitribai Phule Pune University	Consumables	1,000,000.00	• Procurement of chemicals, microbial growth media, glassware, plasticware, membrane filters, etc. • Procurement of pathogenic microbial cultures.
2	Year: 1	Savitribai Phule Pune University	Contingency	250,000.00	Procurement of pathogenic microbial cultures. • Hiring services like XRD, SEM, FTIR, XPS, etc for characterization of organic-inorganic nanohybrid. • Article publication charges for reputed journals. • Conference registration fees and stay arrangements during the conference
3	Year: 2	Savitribai Phule Pune University	Consumables	1,000,000.00	• Procurement of chemicals, microbial growth media, glassware, plasticware, membrane filters, etc.
4	Year: 2	Savitribai Phule Pune University	Contingency	250,000.00	Procurement of pathogenic microbial cultures. • Hiring services like XRD, SEM, FTIR, XPS, etc for characterization of organic-inorganic nanohybrid. • Article publication charges for reputed journals. • Conference registration fees and stay arrangements during the conference
Total (Rs.):				2,500,000.00	

Budget Breakup Details (Equipment)

#	Budget Year	Institute	Equipment Name	Equipment Model	Equipment Manufacturer	Equipment Type	Total Cost(Rs.)	Justification
No Record								

Declaration

I hereby declare that the entries in this form and the additional particulars, if any, furnished herewith are true to the best of my knowledge and belief. I understand that in the event of my information being found false or incorrect at any stage, my project/proposal shall be liable to cancellation / termination without notice or any

1. Title of the proposed research project:

Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination

2. Summary:

Background: The trend to use fresh-cut fruits and vegetables in regular diet is increasing not only in India but worldwide. Outbreaks of foodborne diseases through fresh-cut produce (FCP) have been reported on every continent in the past decade, demonstrating the relevance of the development of strategies to make it safe for consumption. However, it usually cannot be decontaminated by conventional processes since they alter sensory and nutritional properties.

Novelty: Hence, it necessitates development of new decontamination process which will be achieved using the photo-active chlorophyllin nanohybrid. Such nanohybrid are easy to synthesize on large scale using natural sources and don't need surface modification. Being a food additive and excellent biocompatibility make it suitable for incorporation of chlorophyllin in nanohybrid for its application in FCP decontamination. Even the ingestion of traces of nanohybrid together with food seems harmless. They absorb light and kill pathogens by the generation of reactive oxygen species (ROS) without damaging food materials. The pathogens cannot generate resistance.

Objectives: Considering all these facts we are proposing the synthesis of chlorophyllin nanohybrids for their application towards photodynamic decontamination of FCP.

Methods: Phosphate saline buffer, divalent calcium and sodium chlorophyllin will be mixed together for photo-active nanohybrid synthesis. The nanohybrids will be characterized using various analytical techniques. Photo-killing of food pathogens will be tested. Finally, the process will be developed for decontamination of FCP.

Expected outcome: An ecofriendly, rapid process for decontamination of FCP without altering sensory and nutritional quality to increase shelf life of FCP and reduce foodborne infections.

3. Keywords:

Organic-Inorganic Nanohybrid, Photokilling, Food borne pathogens, Fresh-Cut Produce, Decontamination

4. Abbreviations:

Centers for Disease Control and Prevention: CDC, fresh-cut produce: FCP, Photothermal treatment: PTT, surface plasmon resonance: SPR, high pressure: HP, high-intensity electric field pulses: HELP, ultraviolet radiation: UV, radio frequency: RF, gold nanorods: AuNRs, near-infrared light: NIR, nanoporous gold disks: NPGDs, bismuth/cobalt nanoparticles: Bi@Co@CN

5. Background:

FCP are a rich source of carotenoids, cyclic compounds, indoles, polyphenols, and various other secondary metabolites as well as micronutrients which are essential for performing multiple biological activities.¹ The unprocessed FCP retain the complete phytochemicals and nutrients profiles that are otherwise lost during cooking or other processes.² Their use in diet help in minimizing the probability of many health disorders.³ However, the increased consumption of raw FCP has led to an increased risk of contracting foodborne illnesses associated with pathogens (Fig. 1).⁴

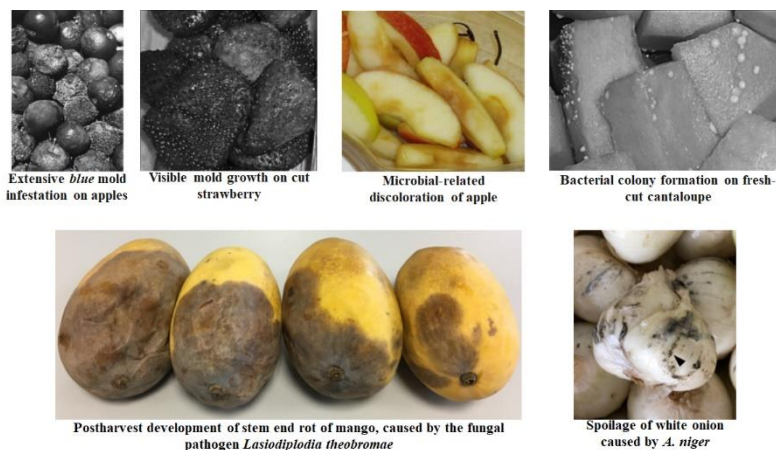


Fig. 1. Contamination and spoilage of FCP due to microorganisms (Photo courtesy⁵).

There are numerous sources which will contribute pathogen contamination to FCP.⁶ These types of contaminations not only spoil the FCP but also spread diseases to humans. Many recent incidences of disease spread are due to consumption of contaminated FCP.⁴ The Centers for Disease Control and Prevention (CDC) has estimated a global average of 48 million cases per year and identified more than 250 foodborne illnesses, listing infectious microorganisms, viruses, and toxic chemicals as their leading causes.⁷ The most commonly linked pathogens to FCP include bacteria, parasites and viruses, with *E. coli* and *Salmonella* being the most abundantly found pathogens in outbreaks related to FCP.⁸ Therefore, FCP should be decontaminated to

make it safe for consumption. This becomes utmost important during the present situation wherein the whole world is facing the worst ever pandemic. Therefore, there is a need for improved control strategies and innovative food safety interventions in order to successfully prevent and curtail microbial outbreaks. Some physical methods are employed for decontamination of FCP such as ‘jacuzzi’ washers, ultrasound, high pressure, high-intensity electric field pulses, ultraviolet radiation, and ionizing radiation. These methods reduce microbial load on the FCP surface in the lab experiments, but they are usually less evident in real processing conditions.⁹ The FCP usually cannot be decontaminated by conventional heating treatments, since it alters their properties. The mechanism of action of various methods is depicted in Figure 2a.

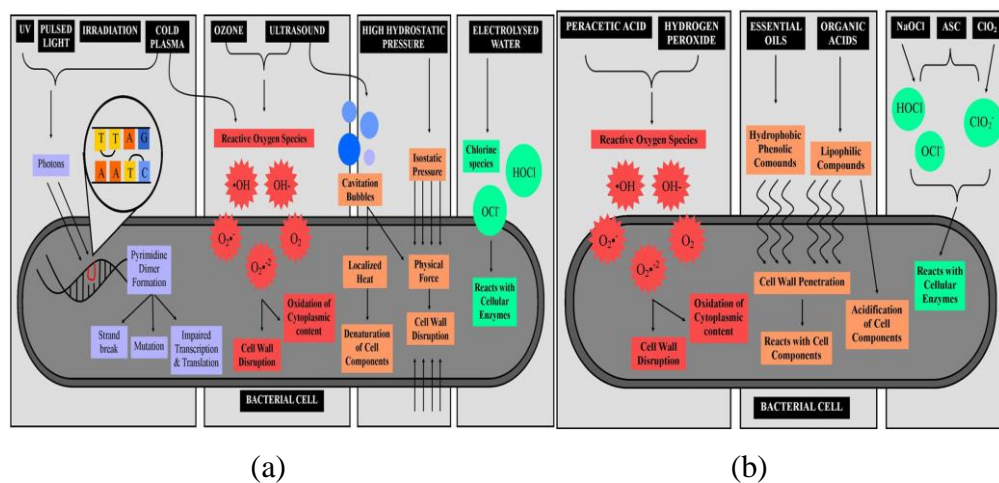


Fig. 2. Action of various (a) physical (b) chemical techniques on bacterial cell (Photo courtesy Bhilwadikar et al.¹).

In active packaging, volatile antimicrobial compounds are kept in the form of sachets to inhibit the microbial contaminants (Fig. 2b).¹⁰ Also, various chemical sanitizers are commonly used in high concentration.¹¹ In particular, the chlorine-based chemicals, are usually used (Fig. 2b). Although these chlorine-based chemicals are very effective, their use to decontaminate FCP is discouraged due to their potential toxicity and formation of carcinogenic halogenated by-products.¹² Considering the limitations of existing methods there is a need of development of new process to decontaminate the FCP. Herein, we propose use of nanotechnology to develop a rapid, effective environmentally friendly FCP decontamination process.

6. Literature review:

Access to safe, healthy, high quality and affordable food represents a fundamental human need. Outbreaks of foodborne diseases have been reported on every continent in the past decade. Foodborne and waterborne diarrhoeal diseases kill an estimated 2.2 million people annually, most of whom are children.¹³ This demonstrates the need of the strategies to improve microbiological food safety. Antibiotics are being used to treat pathogens. However, the overuse of antibiotics resulted in multidrug resistance and posing the greatest health challenges. Hence, finding new long-term solutions for pathogen control is absolutely required. There are several nondrug sterilization methods in place to kill pathogens, however most of them lack localization and alter food properties.¹⁴ Recently the rapid development of nanotechnology opens up whole universe of new possibilities for biomedicine, industry and agriculture. It is possible to utilize photoactive nanomaterials as antimicrobial and anticancer agents which can be activated by light irradiation. Due to their low cost, high throughput, excellent yield, tunable properties, multifunctionality, controllability, and fast effect, they have been recognized as an optimal candidate for defeating even the most challenging pathogens.¹⁵ The use of such nanomaterials has shown great potential in many antibacterial applications ranging from food protection to water treatment, textiles modification, coatings for medical devices and instruments, and even the treatment of bacterial infections, through photodynamic therapy.^{14,16} Several research groups demonstrated, the great potential of photothermal therapy (PTT) for the selective treatment of cancer cells^{17,18}, bacteria^{19,20}, viruses^{19,21}, and DNA²¹ targeted with gold nanospheres, nanoshells, nanorods, and nanosphere clusters. A study reported selective photothermal lysis of pathogens. In this study gold nanorods were synthesized. These researchers covalently attached primary antibodies to nanoparticles. These antibodies were specific for *Pseudomonas aeruginosa*.²² Addae et al.²³ studied inactivation of *B. anthracis* spores and cells using PTT activity of Au/CuS. They found that Au/CuS NPs were effective for inactivating *B. anthracis* cells, only and not the spores. A study reported the antibacterial activity of gold nanorods (AuNRs) using PTT against oral microorganisms. They synthesized AuNRs by the seed and growth solution method. Their results suggest that AuNRs could be used to control oral pathogens and biofilms.²⁴ Santos et al.²⁵ developed a rapid photothermal bacterial inactivation technique using irradiating near-infrared (NIR) light and nanoporous gold disks (NPGDs). In another study Liu et al.²⁶ developed a nanoplatform. This nanoplatform released PES upon exposure to NIL. The released PES

inhibited HSP70 and thereby reducing bacterial tolerance to PTT. This resulted in enhanced pathogen destruction. The authors also suggested that it is possible to reuse PDA@Fe₃O₄ + PES. Similarly, few studies reported the photothermal effect of carbon nanoparticles against tumors and pathogens. Bao et al.²⁷ developed sulfur and nitrogen codoped NIR carbon dots (CDs). These CDs showed high PTT efficiency in mouse models. They were able to visualize the effect using photoacoustic imaging.²⁷ Tu et al.²⁸ used activated carbon for the synthesis of carbon nanoparticles of less than 10 nm size. They showed that NIR irradiation of carbon nanoparticles effectively killed cancer cells. In a recent study, Wang et al.²⁹ synthesized bismuth/cobalt nanoparticles (Bi@Co@CN) and coated them with multifunctional nitrogen-rich carbon. Their results showed that synthesized nanoparticles were reusable and biocompatible having ability to generate ROS and photothermal conversion of materials. The combined effect killed *S. aureus*. Another promising approach is the light-dependent inactivation of bacteria via antimicrobial action of light-sensitive molecule (photosensitizer). The photosensitizer becomes reactive in the presence of light. A prominent group of photosensitizers is porphyrins. A study reported photokilling of *Pseudomonas syringae* using porphyrins in kiwi fruit plants without causing leaf damage to the host plant.³⁰ Natural photosensitizers are also available and among them, chlorophyll is probably the one with the highest abundance, the easiest to obtain and therefore the cheapest.³¹ Chlorophyllin is a semi-synthetic mixture of sodium copper salts derived from chlorophyll. Unlike natural chlorophyll, chlorophyllin is water-soluble. Once activated with visible light of appropriate wavelength, it generates reactive oxygen species (ROS) which induce lethal damage to pathogens, viruses and fungi.^{31,32,33} Photo-decontamination of foodstuff and porcine skin using a curcumin formulation^{34,35,36,37} as well as photo-treatment of bacteria on strawberries using a Na-chlorophyllin³² or a chitosan-complex thereof³¹ is documented. A cost-effective and safe treatment was developed by Glueck et al.³⁸ using sodium magnesium chlorophyllin against *R. fascians* and *X. axonopodis* pv *axonopodis*. These studies prove applicability of photodynamic killing for pathogens. Although ample research has been carried out showing application of photoactive nanoparticles and photosensitizers but their application has limitations. The metal nanoparticles pose a threat to human health and environment. Not all the photosensitizers are food grade. They can not be used repeatedly due to photo-inactivation. Hence, in the proposed study we are using the nanotechnology to immobilize the natural photosensitizer chlorophyllin in the form of nanohybrid. Nanohybrids/Nanoflowers are a newly

developed class of tiny particles. They show structural similarity to plant flowers. The size of these class of nanoparticles range from 100 to 500nm.^{39,40} Increasing interest in these types of nanohybrids is being paid due to their simple preparation method, non-toxicity and cost effectiveness. They can be synthesized using organic, inorganic materials and sometimes a combination of both.⁴⁰ nanohybrids are composed of several layers of petals to encompass a larger surface area. This unique hierarchical porous nanohybrid morphology provides high surface to volume ratio and less mass transfer limitation resulting in fairly high carrier immobility and catalytic activity. The immobilization of proteins and enzymes in the form of nanohybrids enhances their stability and efficiency.⁴¹ Considering the unique properties of these nanohybrids, they have been used for multiple applications such as catalysis, biosensors, enzyme purification and delivery of drugs. Extensive studies are available showing use of plant extracts for nanomaterial synthesis.⁴² Kilic et al.⁴³ showed for the first time that the plant extract can replace protein, enzyme and amino acid for the nanohybrid synthesis. The plant extract act as organic part. Similarly, we are proposing use of chlorophyllin for the synthesis of photo-active nanohybrid. The use of such nanohybrid in FCP decontamination can overcome the drawbacks of existing processes.

7. Novelty/Innovation:

The proposed concept will use sun/artificial light to provide rapid and energy-efficient inactivation of microbial contaminants from FCP through the use of photo-active chlorophyllin nanohybrid. The chlorophyllin nanohybrid selectively kill the pathogens without altering the sensory and nutritional quality of food. This is advantageous as compared to chemical treatments. The PTT of chlorophyllin nanohybrid is not only suitable for solid food materials but also for liquid food samples. Though, various studies showed application of metal nanoparticles for PTT of pathogens, but they have not been applied for decontamination of fresh-cut produce. The accumulation of these metal nanoparticles on fresh-cut produce is unavoidable which cause secondary pollution. The presence of metal nanoparticles may adversely affect human health. The decontamination of fruits using chlorophyllin solution is reported earlier. The drawback is color traces remain of fruits. These drawbacks can be overcome using chlorophyllin nanohybrid for PTT based inactivation of pathogens. The synthesis of photo-active nanohybrid involve chlorophyllin extracted from natural source and calcium. Hence, their use is safe for humans as

well as for the environment. The pathogens cannot generate resistance against photo-killing. Hence, it is effective against antibiotic resistant pathogens as well. This process will not change sensory properties. Also, the nanohybrids can be recycled several times.

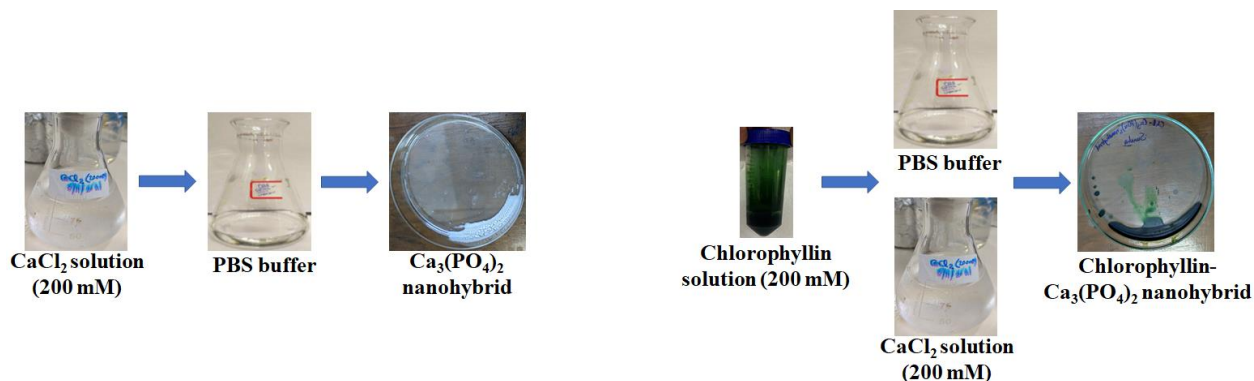
8. Study Objectives:

- Synthesis and characterization of photo-active chlorophyllin nanohybrid
- In vitro study of antimicrobial activity of chlorophyllin nanohybrid against food pathogens
- Understanding the mechanisms of pathogen killing
- Application of chlorophyllin nanohybrid for decontamination of fresh-cut produce

9. Methodology (up to 2000 words): Include the following subheads

i. Study Design:

Synthesis of $\text{Ca}_3(\text{PO}_4)_2$ -nanohybrid with and without chlorophyllin



Synthesis of $\text{Ca}_3(\text{PO}_4)_2$ nanohybrid with and without chlorophyllin

A sodium salt of chlorophyllin shall be used for nanohybrid synthesis. The nanohybrids with and without chlorophyllin shall be synthesized adopting previously optimized process (as shown in above illustration). Typically, chlorophyllin solution of varying concentration shall be separately added into the mixture containing 50 mL of 10 mM PBS (pH 7.4) and 200 mM CaCl_2 . Then each mixture shall be vortexed for 30 s, and then shall be incubated at 4 °C in dark for 3 days without disturbing. The precipitates occurred at the bottom of reaction tubes shall be collected and washed with buffer using centrifugation at 10,000 rpm for 15 min. The final products shall be dried at 4 °C in dark to get nanohybrid powder. Similar process shall be followed for synthesis of

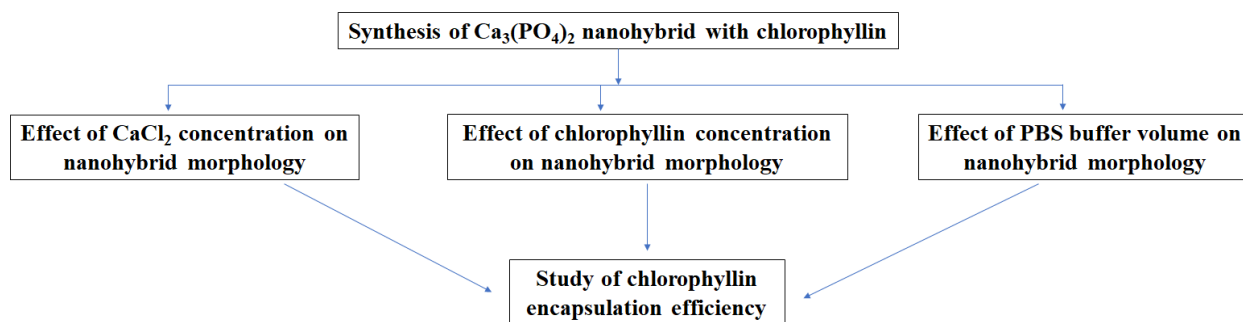
nanohybrid without chlorophyllin. To achieve it all above chemicals shall be mixed together except chlorophyllin.

Characterization of nanohybrid

The nanohybrid with and without chlorophyllin shall be characterized using Scanning Electron Microscopy (SEM), Fourier Transform Infrared Spectroscopy (FTIR), Energy Dispersive X-Ray and X-Ray Diffraction (XRD) analysis, UV-vis spectrophotometer.

Optimization of nanohybrid synthesis

The nanohybrid with chlorophyllin shall be synthesized by varying CaCl_2 concentration, chlorophyllin concentration and PBS buffer volume.



The chlorophyllin encapsulation yield (EY) shall be determined by finding the ratio of the amount of chlorophyllin immobilized to total amount of chlorophyllin used. The chlorophyllin concentration in the supernatant after centrifugation shall be measured.

Stability and Reusability

The storage stability of immobilized chlorophyllin shall be determined at varying temperatures. Samples shall be withdrawn at regular intervals over the incubation of 30 days to measure the residual photo-activity of chlorophyllin.

The reusability of the chlorophyllin nanohybrid shall be tested. After each photo-activity cycle, chlorophyllin nanohybrid shall be separated by centrifugation for 10 min at $8,050 \times g$ and 4°C , and used for the next cycle. The initial photo-activity of the chlorophyllin nanohybrid shall

be considered to be 100%. The leaching of immobilized chlorophyllin shall be evaluated by the measurement of photo-activity in the supernatant of each cycle.

Evaluation of antimicrobial activity

Various food borne pathogens such as Salmonella, E. coli, Staphylococcus aureus, etc shall be collected. The photo-killing of these pathogens using chlorophyllin nano hybrid shall be tested. The 100 μL of microbial culture (containing fixed number of cells) shall be mixed with varying amount of $\text{Ca}_3(\text{PO}_4)_2$ -chlorophyllin nano hybrid.



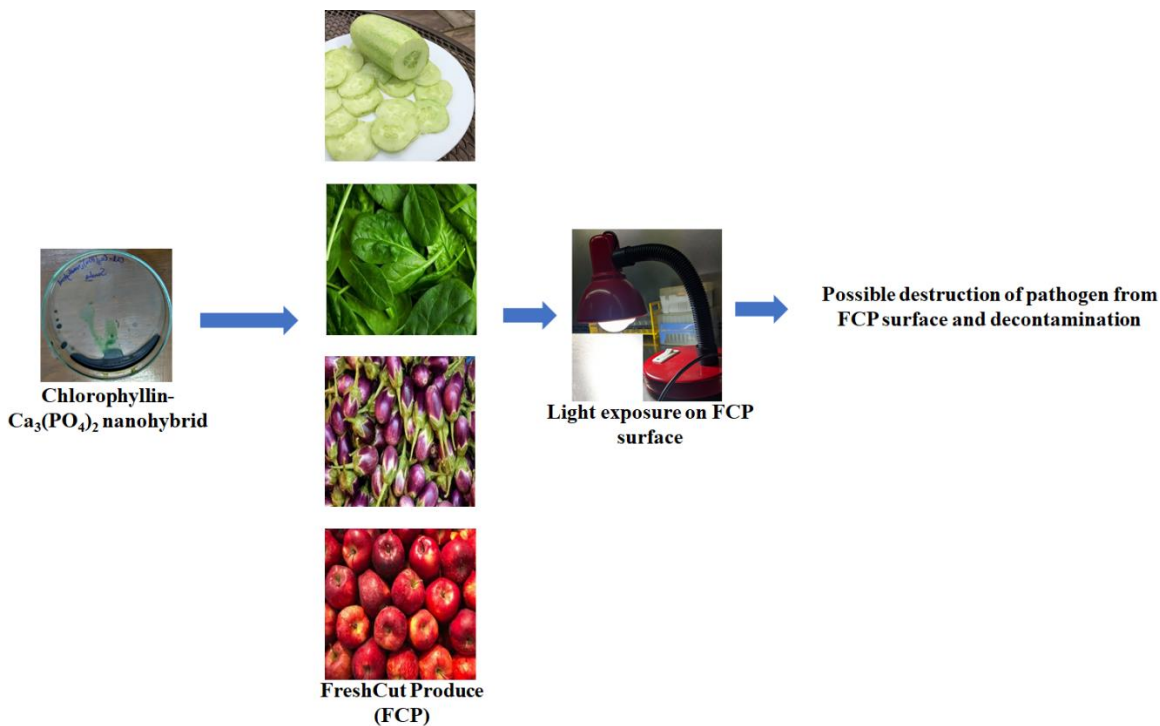
Experimental setup for photodynamic treatment of pathogenic cultures

The photodynamic activity shall be initiated by exposing this mixture to a light source. The controls (a) samples of pathogenic culture with and (b) without light exposure, (c) samples of pathogenic culture mixed with $\text{Ca}_3(\text{PO}_4)_2$ and exposed to light (d) samples of pathogenic culture mixed with $\text{Ca}_3(\text{PO}_4)_2$ and not exposed to light (e) samples of pathogenic culture mixed with $\text{Ca}_3(\text{PO}_4)_2$ -Chlorophyllin nano hybrid and not exposed to light shall be used. The colony forming units shall be counted for all treatments and shall be compared.

Decontamination of FCP and determination of sensory and nutritional properties of FCP

The $\text{Ca}_3(\text{PO}_4)_2$ -chlorophyllin nano hybrid shall be tested for the decontamination of FCP. The FCP shall be purchased from local vegetable market. They shall be surface sterilized with 90% ethanol. Then, they shall be cut in pieces and these pieces shall be surface sterilized into 70% ethanol. They shall be washed with distilled water. The pathogen suspension shall be poured on these pieces and shall leave them for 30 min at room temperature for cell attachment. Then the

pieces shall be dried. The pieces shall then be treated with $\text{Ca}_3(\text{PO}_4)_2$ -chlorophyllin nano hybrid for appropriate time and exposed to light. Then these pieces shall be washed with sterile saline.



Decontamination of FCP using $\text{Ca}_3(\text{PO}_4)_2$ -chlorophyllin nano hybrid

The saline shall be collected and serially diluted. An appropriate dilution shall be selected to determine the colony forming units on agar plate. The sensory appearance of FCP shall be monitored before and after decontamination treatment. Also, various parameters shall be studied to identify the loss of nutritional components of FCP.

10. Expected Outcomes (up to 100 words)

At present the available FCP disinfectant are either chlorine or plant extract based and no product is available in Indian market based on photo-active nano hybrid. Such product will help to remove fear from common people's mind regarding toxicity and other ill effects and encourage them to use it. The increased use of such product will help to stop food-borne pathogen outbreak and help to develop a disease free, healthy community. This is very important in current pandemic situation where the public health care system is about to break and other diseases remain neglected.

11. Limitations of this study (up to 100 words)

The decontamination process depends on exposure to an appropriate light source. But this can be easily overcome since every household or commercial enterprise have proper light sources.

12. Future plans based on expected outcomes if any (up to 100 words)

A recipe of chlorophyllin nano hybrid containing solution is expected which can be introduced as FCP decontaminant. Looking forward to set up the collaboration with food and packaging industries to extend the developed process for possible commercialization.

13. Timelines: Details of activities to be carried out along with timelines during preparatory phase, data collection, analysis & report writing to be provided.

Sr. No.	Milestones	Months				
		6	7-10	12-15	16-19	19-24
1	Procuring chemicals, consumables, & microbial cultures					
2	Advertising the position & hiring the manpower					
3	Synthesis and characterization of photo-active nano hybrid					
	Optimization of process parameters for nano hybrid synthesis					
4	In-Vitro study of antimicrobial activity of nano hybrid against various pathogens and identification of antagonistic mechanism					
5	Study the decontamination of FCP using photothermal activity of nano hybrid					
8	Data analysis and manuscript preparation					
9	Sending Report to ICMR					

14. Institutional Support:

The proposed research needs to use techniques from Microbiology and Nanotechnology. The faculty from Department of Microbiology, Department of Physics and Department of Instrumentation Science, Savitribai Phule University have established the collaboration to carry out such work. The equipment and facilities available at Department of Microbiology are UV-Vis spectrophotometer (Shimadzu), Temperature controlled room (Newtronic), Cooling centrifuge (Kubota-6500), Biosafety cabinets (Micro-Filt, India; MFI BIO 4x2), Autoclave (Equitron-74315SWL), Hot air oven (BioTechnics India-RTL-79), Microwave oven (Samsung-E104VD), Muffle furnace, Hydrothermal autoclaves, Probe sonicator (QSonica-Q125), pH meter (LabIndia), Weighing balance (Shimadzu-AUX220), Refrigerators (Samsung), Ultra-low temperature freezer (Eppendorf- U410), MilliQ water Purification system (Sortorius arium mini). The equipment and facilities available at Department of Physics and Department of Instrumentation Science are Transmission electron microscopy (TEM), Atomic force microscopy (AFM), XRD, NMR, Raman spectroscopy, Photo-spectrometer. Several instruments are also available at central instrumentation facility of Savitribai Phule University

15. Budget:

Budget head	Amount (Rs)
Equipment	0
Contingency	25,00,000
Travel	1,00,000
Manpower	7,44,000
Overhead charges (3%)	1,00,320
Total	34,44,320

Staff/Manpower	
Sno	Salary
Junior Research Fellow (01)	Rs. 31000 per month For 24 Months= 7,44,000
Justification of Staff/Manpower: This is a multidisciplinary project. We need a dedicated research fellow who can look after the experimental part for successful implementation of the proposed research work.	

Equipment: Not applicable	
----------------------------------	--

Contingency/Consumables	
Detail	Justification

1. Amount of Rs. 20,00,000 is required for purchase of consumables	<ul style="list-style-type: none"> • Procurement of chemicals, microbial growth media, glassware, plasticware, membrane filters, etc. • Procurement of pathogenic microbial cultures. • Hiring services like XRD, SEM, FTIR, XPS, etc for characterization of nanohybrid.
2. Amount of Rs. 5,00,000 is required to spend as contingency	<ul style="list-style-type: none"> • Article publication charges for reputed journals. • Conference registration fees and stay arrangements during the conference.

Travel Allowance	
Detail	Justification
Amount of Rs. 1,00,000 is required as travel allowance	<ul style="list-style-type: none"> • For collecting the samples. • For attending the conferences and ICMR meetings.

References

1. Bhilwadikar T, Pounraj S, Manivannan S, Rastogi N, Negi P, (2019) Comprehensive Reviews in Food Science and Food Safety, 18, 1038.
2. Brookie K, Best G, Conner T, (2018) Frontiers in Psychology, 9, 487.
3. Yousuf O, Titikshya S, Singh A, (2018) Int. J. Chem. Stud. 6, 2229.
4. Callejón R, Rodríguez-Naranjo M, Ubeda C, Hornedo-Ortega R, Garcia-Parrilla M, Troncoso A (2015) Foodborne Pathog. Dis. 12, 38.
5. Kaczmarek M, Avery S, Singleton I, (2019) Advances in Applied Microbiology, 107, 65.
6. Pachepsky Y, Shelton R, McLain J, Patel J, Mandrell R, (2011) Advances in Agronomy 113, 73.
7. Centers for Disease Control and Prevention (CDC), (2018) Retrieved from <https://www.cdc.gov/foodsafety/foodborne-germs.html>
8. Mukherjee A, Speh D, Dyck E, Diez-Gonzalez F, (2004) J. Food Protection 67, 900.
9. Gil M, Selma M, López-Gálvez F, Allende A, (2009) Int. J. Food Microbiol. 134, 45.
10. Corbo M, Speranza B, Campaniello D, Amato D, Sinigaglia M, (2010) Appl. Microbiol. Microbial Biotechnol. 2, 1154.
11. Hassenberg K, Geyer M, Mauerer M, Praeger U, (2017) Food Sci. Technol. 79, 354.
12. Ölmez H, Kretzschmar U, (2009) LWT- Food Sc. Technol. 42, 693.

13. Organisation W H, (2014) Advancing food safety initiatives: strategic plan for food safety including foodborne zoonoses 2022, p. 31.
14. Pieslinger A, Plaetzer K, Oberdanner C, Berlanda J, Mair H, Krammer B, Kiesslich T, (2006) *Med. Laser Appl.* 21, 283.
15. Wainwright M, Maisch T, Nonell S, Plaetzer K, Almeida A, Tegos G, Hamblin M, (2016) *Lancet Infect. Dis.* 17, 55.
16. Sperandio F, Huang Y, Hamblin M, (2013) *Recent Pat. Anti-Infect. Drug Discovery*, 8, 120.
17. Pitsillides C, Joe E, Wei X, Anderson R, Lin C, (2003) *Biophys. J.* 84, 4032.
18. Hirsch L, Stafford R, Bankson J, Sershen S, Rivera B, Price R, Hazle J, Halas N, West J, (2003) *Proc. Natl Acad. Sci.* 23, 1354.
19. Zharov V, Kim J, Curiel D, Everts M, (2005) *Nanomedicine* 1, 345
20. Zharov V, Mercer K, Galitovskaya E, Smeltzery M, (2006) *Biophys. J.* 90, 627.
21. Everts M, Saini V, Leddon J, Kok R, Stoff-Khalili M, Preuss M, et al., (2006) *Nano Lett.* 6, 591.
22. Norman R, Stone J, Gole A, Murphy C, Sabo-Attwood T, (2008) *Nano Lett.* 8, 306.
23. Addae E, Dong X, McCoy E, Yang C, Chen W, Yang L, (2014) *J. Biol. Eng.* 8, 11.
24. Castillo-Martínez J, Martínez-Castañón G, Martínez-Gutierrez F, Zavala-Alonso N, Patiño-Marín N, Niño-Martinez N, Zaragoza-Magaña V, Cabral-Romero C, (2015) *J. Nanomater.* 2015, 7.
25. Santos G, Ferrara F, Zhao F, Rodrigues D, Shih W, (2016) *Optical Mater. Express* 6, 1229.
26. Liu D, Ma L, Liu L, Wang L, Liu Y, Jia Q, Guo Q, Zhang G, Zhou J, (2016) *ACS Appl. Mater. Interfaces* 8, 24462.
27. Bao X, Yuan Y, Chen J, Zhang B, Li D, Zhou D, Jing P, Xu G, Wang Y, Holá K, Shen D, Wu C, Song L, Liu C, Zbořil R, Qu S, (2018) *Light: Sci. Applicat.* 7, 91.
28. Tu X, Ma Y, Cao Y, Huang J, Zhang M, Zhang Z, (2014) *J. Mater. Chem. B* 2, 2192.
29. Wang R, Zhang B, Liang Z, He Y, Wang Z, Ma X, Yao X, Sun J, Wang J, (2019) *Appl. Catal. B: Environ.* 241, 177.
30. Almeida A, Martins D, Faustino M, Neves M, Reis L, Figueira E, (2018) *Planta* 248, 421.
31. Buchovec I, Lukseviciute V, Marsalka A, Reklaitis I, Luksiene Z, (2016) *Photochem. Photobiol. Sci.* 15, 516.

32. López-Carballo G, Hernández-Muñoz P, Gavara R, Ocio M, (2008) *Int. J. Food Microbiol.*, , 126, 70.
33. Luksiene Z, Paskeviciute E, (2011) *J. Appl. Microbiol.* 110, 1283.
34. Kairyte K, Kadys A, Luksiene Z, (2013) *J. Photochem. Photobiol. B*, 128, 84.
35. Tortik N, Spaeth A, Plaetzer K, (2014) *Photochem. Photobiol. Sci.* 13, 1409.
36. Tortik N, Steinbacher P, Maisch T, Spaeth A, Plaetzer K, (2016) *Photochem. Photobiol. Sci.* 15, 195.
37. Menezes H, Rodrigues G, Teixeira P, Massola N, Bachmann L, Wainwright M, Braga G, (2014) *Appl. Environ. Microbiol.* 80, 1632.
38. Glueck M, Schamberger B, Eckl P, Plaetzer K, (2017) *Photochem. Photobiol. Sci.* 16, 1791.
39. Wang X, Shi J, Li Z, et al. (2014) *ACS Appl. Mater. Interfaces.* 6, 14532.
40. Shende P, Kasture P, Gaud R, (2018) *Artificial Cells Nanomed. Biotechnol.* 46, 422.
41. Kharisov I, (2008) *Recent Pat. Nanotechnol.* 2, 200.
42. Demirbas A, Welt B, Ocsoy I, (2016) *Mater Lett.* 179, 23.
43. Kilic A, Altinkaynak C, Ildiz N, Ozdemir N, Yilmaz V, Ocsoy I, (2020) *Med. Sci.* 9, 196.

SAVITRIBAI PHULE PUNE UNIVERSITY

Department of Microbiology
Savitribai Phule Pune University
Pune 411007
INDIA



Phone : +91-20-25690643
Fax : +91-20-25690087
Email : hodmicro@unipune.ac.in

UNDERTAKING STAFF RECRUITMENT

Name of the Project: Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination

Name of the PI: Dr. Umesh U. Jadhav

Name of the Co-PI: Dr. Shweta Jagtap and Dr. Sandeep Pai

Name of the Institute: Savitribai Phule Pune University

ICMR file reference No: IRIS ID-2021-10581


ICMR funds all extra-mural projects on the condition that the staff employed by the project will be recruited as per the rules and procedure of the host institute. ICMR has apprised us of this rule and we have carefully noted it. It is confirmed that during the currency of the project entitled, 'Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination' under Dr. Umesh U. Jadhav at Department of Microbiology, Savitribai Phule Pune University as well as on its termination relating all legal liabilities relating to staff etc, will be the responsibility of the host Institute and not of the ICMR.


**Signature of the Principal Investigator
(with stamp)**

Assistant Professor
Department of Microbiology
Savitribai Phule Pune University
Formerly University of Pune
Pune - 411 007.

**Signature of Head of the Department
(with stamp)**

Date: 8/4/2022


Registrar
Savitribai Phule Pune University
**Signature of Head of the Institute
(with stamp)**


Head
Department of Microbiology
Savitribai Phule Pune University
Formerly University of Pune
Pune - 411 007.





The Co-Immobilization Of Saccharification Enzymes Using A Novel Nanohybrid Based Nanobiocatalytic System For The Sustainable Bioethanol Production

Reference No. : 132022001195

Saved By : Dr. Umesh Uttamrao Jadhav

[SERB Qualified Unique Identification Document: SQUID-1981-UJ-3175]

Saved Date : 25-Aug-2022

PROPOSAL DETAILS

Dr. Umesh Uttamrao Jadhav

umeshjadhav02@gmail.com

Assistant Professor (Department of Microbiology)

Savitribai Phule Pune University

Ganeshkhind, pune, Pune, Maharashtra-411007

[Institution under state government]

Technical Details :

Scheme : State University Research Excellence (SERB SURE)
Research Area : Interdisciplinary Biological Sciences (IBS) (Life Sciences)
Duration : 36 Months **Contact No :** +917218921018
Date of Birth : 02-Dec-1981
Nationality : INDIAN **Total Cost (INR) :** 25,20,000

Project Summary :

Biofuels are sustainable alternative for fossil fuels. Their use is very important for countries like India which will not only help to release economic burden but also to reduce the environmental impact. The enzymatic hydrolysis of polysaccharide present in biomass is the key step. However, use of free enzymes for saccharification have several limitations such as high cost, feedback inhibition, low stability, poor reusability and difficulty of their use in continuous reactors. The enzyme immobilization may help to circumvent these limitations. Several methods are being used for the enzyme immobilization. Besides their advantages the traditional immobilization methods suffer from the poor yield of immobilization, detachment of enzyme from adsorbed substrate, the lack of effective reusability, blocking of the active site of enzyme, restricted flexibility and mass transfer limitations between the enzyme and substrate. It is expected that immobilization carriers should be resistant to physical, chemical, and biological stress. Few of the currently used matrices fail to achieve it and enzyme leakage occurs. Considering the limitations of existing methods there is a need of development of new process to immobilize saccharification enzymes. The proposed process of immobilization of saccharification of enzymes in organic-inorganic nanohybrid may overcome these issues. The organic-inorganic nanohybrid exhibited several advantages as carriers for enzyme immobilization. It is much easier to prepare and does not need any toxic chemicals, complex covalent modification/organic solvents. A hierarchical porous nanohybrid morphology increases the specific surface area to volume ratio and allow high enzyme loading resulting in enhanced catalytic activity compared to free form. The porous structure reduces mass transfer inhibition. Hence, enhanced catalytic activity of enzymes is achievable. In nanohybrid it was observed that the binding sites were different than active site of enzyme. The unique porous nanohybrid structure provides a favourable microenvironment and improve the enzyme's stability. The nanohybrids are known for simultaneous immobilization of multiple enzymes/proteins. This will favourably position co-enzymes in close proximity to improve enzymatic efficiency and reduce the saccharification time. The cost of chemicals required to form nanohybrids is cheaper compared to conventional chemicals. The use of organic-inorganic hybrid nanoflower for immobilization of saccharification enzymes have not been reported yet. If developed such nanohybrid can be an important asset for establishing a low-cost bioethanol production process.

Objectives :

- Screening of appropriate biocatalysts and biomass
- Synthesis and characterization of SEs containing nanohybrid
- Study of saccharification ability of SEs containing nanohybrid
- Application of SEs containing nanohybrid for bioethanol production

Keywords :

Nanohybrid; Enzymes; Starch

Expected Output and Outcome of the proposal :

The proposed research may result in development of a suitable biocarrier for co-immobilization of saccharification enzymes. This will favourably position co-enzymes in close proximity to improve enzymatic efficiency and reduce the saccharification time. The cost of chemicals required to form nanohybrids is cheaper compared to conventional chemicals. Hence, a rapid and economically viable bioethanol production can be achieved using starch containing biomass.

Suitability of the proposed work in major national initiatives of the Government:

Make in India, Swachh Bharat, Startup India


Theme of Proposed Work:

Energy, Environment

Collaboration Details for last 5 Years :

Planned Collaboration for the proposed work with any foreign scientist/ institution ?

No

SNo.	CO-PI Details
1	 <p>Sandeep Pai drpairs@gmail.com Assistant Professor and Head(Department of Botany, Rayat Shikshan Sanstha's Dada Patil Mahavidyalaya, Karjat)</p> <p>Rayat Shikshan Sanstha's Dada Patil Mahavidyalaya Ahmednagar, Karjat, Maharashtra, MAHARASHTRA, AHMEDNAGAR <i>College (Public)</i> D.O.B : 13 Jun, 1979</p>

Other Technical Details

1. Origin of the Proposal:

The increasing population and industrialization in India are the driving forces for the constant rise in demands for energy. This is fulfilled majorly by importing and using fossil fuels (Energy Information Administration 2015). Such dependency on foreign petroleum sources make the Indian economy volatile. At the same time the processes involving petroleum extraction and its use have also imparted negative environmental effects (Mohapatra et al., 2019). This has raised the need for search of alternative renewable energy sources that bring the promise of energy security and sustainability (Charles et al., 2007; Alvira et al., 2010). In this context, the biofuels such as bioethanol can serve as an alternative source of energy (Karp and Halford, 2010; Mohapatra et al., 2018). Three main steps, pretreatment of biomass, enzymatic hydrolysis and fermentation along with downstream processing are involved in production of bioethanol from biomass (Figueiredo et al., 2017). A lot of research has been carried out for optimization of pretreatment processes (Sindhu et al., 2013). Also, several researchers have used various biomass and biocatalysts for bioethanol production (Limayem and Ricke, 2012). However, use of free enzymes for saccharification have several limitations such as high cost, feedback inhibition, low stability, poor reusability and difficulty of their use in continuous reactors (Sivaramakrishnan et al., 2006; Putro et al., 2016). These limitations can be circumvented by using enzymes in their immobilized form (Carpio et al., 2009). Entrapment, adsorption, encapsulation in membranes, chemical cross linking by using bifunctional or multifunctional reagents and bioaffinity based procedures are some of the enzyme immobilization methods (Haider et al., 2007). Besides their advantages the traditional immobilization methods suffer from the poor yield of immobilization the lack of effective reusability, blocking of the active site of enzyme, restricted flexibility and mass transfer limitations between the enzyme and substrate (Husain 2017). Considering the limitations of existing methods there is a need of development of new process to immobilize saccharification enzymes. Recently, our group developed a novel, one-step immobilization technique involving phosphate-buffered saline, copper sulphate, and enzyme to form an organic-inorganic hybrid nanoflower/nanohybrid. The nanohybrid offers a characteristic hierarchical porous nanostructure which provides a high surface-to volume ratio and decreased mass transfer limitation. Considering these benefits, herein, we propose synthesis of nanohybrid for effective enzyme immobilization to improve the saccharification process.

2. Review of status of Research and Development in the subject

2.1 International Status:

Saccharifying enzymes (SEs) emerged as promising biocatalysts for hydrolysis of biomass to generate green and sustainable fuels. The SEs require less chemicals and they generate fewer inhibitory compounds. They give higher yield with less energy input under mild environment conditions (Brummer et al., 2014). Despite all these characteristic features, cost of enzymes, lack of operational stability, storage or thermal stability, difficult recovery, and low reproducibility often challenge the exploitability of enzymes at the industrial level. Reuse of SEs is another means to reduce the overall cost of the saccharification (Huang et al., 2015). Immobilization of enzymes not only enable reuse but also increase the activity and stability of the enzymes (Ranjbakhsh et al., 2012; Šulek et al., 2011). Enzymes will be protected from denaturation by heat or organic solvents or by autolysis. Several immobilization methods have been developed in last few decades. The work carried out by Park et al. (2005) examined the effect of surface characteristics of carriers (such as hydrophilicity and hydrophobicity) on the enzymic hydrolysis of starch. They used silica gel and DEAE-cellulose as model carriers for covalent immobilization of amylase and glucoamylase. They found that all co-enzymes immobilized on hydrophilic carriers exhibited the highest activities. Also they observed shifts of optimum temperature and pH during the hydrolysis of starch. Hassan et al. (2019) used κ -carrageenan gel beads for glucoamylase immobilized. The immobilized enzyme showed stability towards broader range temperature and acidic conditions compared to free enzyme. Authors reported 11 successive cycles for reuse of the immobilized enzyme. Al-Najada et al. (2019) reported for the first time the cross-linking immobilisation of α -amylase on amidrazone acrylic fabric. They used amidrazone acrylic fabric. This fabric was activated with cyanuric chloride. The immobilization of α -amylase was achieved by its cross-linking with cyanuric chloride. A interesting study described co-immobilization of various enzymes using porous microspheres for inositol production from starch. Researcher compared the inositol production using individual cascade enzymes immobilized separately in microsphere and co-immobilized in same microsphere. They found that inositol production rate of co-immobilized multi-enzymes was much higher than that of the mixture of individual immobilized enzymes (Han et al., 2020). Various materials have been used to improve the catalytic properties of enzymes. They include not only the microsized biomaterials but also numerous types and shapes of nanostructured support materials. The adsorption based immobilisation of enzymes on metal nanoparticles is very popular. It involves the hydrogen, hydrophobic, electrostatic, ionic and van der Waals forces for formation of bonds between the

enzyme and the carrier. Such weak interactions do not affect the tertiary structure of the enzyme and avoid reduction in catalytic activity. Considering this fact, Długosz et al. (2021) carried out the process of amylase immobilization on the surface of Fe₃O₄ nanoparticles and studied the influence of various parameters on hydrolysis of starch. Another study showed use of chitin-binding domain for immobilization of β-glucosidase from on magnetic nanoparticles (MNPs) functionalized with chitin (Alnadari et al., 2020). The support carriers used for enzyme immobilization should be water-insoluble and exhibit functional groups, biocompatibility, and a larger specific surface area (Zhang et al., 2015a; Zhang et al., 2015b). Considering this fact, the immobilization of enzymes in the form of nanoflowers has attracted attention of many researchers. The topographical features of nanoflowers provide huge surface-to-volume ratio than spherical nanoparticles. Also they can be synthesized by one pot green process (Ge et al., 2012; Zeng and Xia, 2012). This is also call as ‘organic-inorganic hybrid nanoflowers’ which contain enzyme as organic part and copper as inorganic part. They exhibited much higher catalytic activity, stability and durability compared with free and conventional immobilized forms of the enzymes. The organic-inorganic hybrid nanoflowers provide low mass transfer resistance, and the enzyme cooperative interactions (Ge et al., 2012; Lee et al., 2015; Escobar et al., 2017; Liu et al., 2017; Zhu et al., 2018). Various researchers showed that it is possible to produce the organic-inorganic hybrid nanoflowers using not only Cu₃(PO₄)₂ (Batule et l., 2015; Somturk et al., 2015; Cui et al., 2016; Wu et al., 2016; Nadar et al., 2016; Altinkaynak et al., 2017; Altinkaynak et al., 2018), but also other metals such as Ca²⁺, Co²⁺, Ni²⁺, Zn²⁺, Mn²⁺ etc. (Wang et al., 2013; Ke et al., 2016; Zhang et al., 2016a,bc; Munyemana et al., 2018; Rai et al., 2018; Zheng et al., 2018). These recent developments offered novel potentialities to redefine the applied perspectives and limits of biosensing devices such as biosensors. Few studies reported the development of biosensor based on organic-inorganic hybrid nanoflowers (Zhu et al., 2018; Tran et al., 2018; Batule et al., 2019). A study showed rapid detection of phenol using laccase nanoflowers (Zhu et al., 2013). This laccase-assisted nanoflower catalyzed the oxidative coupling of phenol to 4-aminopyrine to form an antipyrine dye, which was detected at 495 nm. A colorimetric sensor was developed using multi-enzyme co-embedded organic-inorganic hybrid nanoflowers (Chung et al., 2013; Sun et al., 2014; Batule et l., 2015). A novel kind of luminol chemiluminescence immunosensor based on a microfluidic chip for the determination of ractopamine is reported by Wang et al. (2017). However, the organic-inorganic hybrid nanoflower immobilizing saccharification enzymes have not been reported yet. If developed such nano hybrid can be an important asset for establishing a low cost bioethanol production process.

2.2 National Status:

The saccharification enzymes play an important role in bioethanol production. However, the sensitivity of these enzymes towards various factors limits their commercial application. Thus, there is a need to stabilize enzymes. It can be improved by immobilizing them using suitable carriers. The immobilization process facilitates decreased inhibition by reaction products, selectivity towards non-natural substrates and better functional properties compared to free enzymes (Iyer and Ananthanarayan, 2008). Jaiswal et al. (2012) used gelatin matrix for immobilization of α -amylase. They further used response surface methodology to study the effects of gelatin concentration, glutaraldehyde concentration and hardening time on the activity of immobilized α -amylase. Various carriers such as DEAE cellulose, gelatin polyacrylamide and agar were tested for immobilization of α -amylase. The enzyme immobilization involved ionic binding, covalent binding and entrapment. The DEAE cellulose was proved to be the effective carrier and provided enhanced stability for various organic solvents (Kikani et al., 2013). Shukla and Singh, (2016) studied the structural and catalytic properties of immobilized α -amylase. They found that the aliphatic amines, esters and alkenes played a significant role in binding of the free enzyme with carrier. The temperature and pH optima shifted for immobilized enzyme. Co-immobilization involve immobilizing two or more enzymes on one system and may help to reduce the cost (Minakshi and Pundir, 2008; Bankar et al., 2011). However, only a few studies of co-immobilization were reported as applied in starch hydrolysis. Chakrabarti and Storey (1990) investigated a co-immobilized system of glucoamylase and pullulanase to enhance starch hydrolysis. During hydrolysis of starch if the multiple enzymes are added sequentially then sometimes the products of the first enzyme inhibit the second enzyme. To avoid such effects Roy and Gupta (2004) entrapped glucoamylase and pullulanase individually in calcium alginate beads. Then these enzyme containing beads were used for hydrolysis of starch. Another study reported the immobilization of β amylase on an inorganic support, Celite-545 by simple adsorption mechanism. Several physical and chemical parameters were studied for their enzyme denaturant activity. A superior starch hydrolysing ability of immobilized β amylase was observed as compared to the free enzyme (Khan et al., 2011). Saha et al. (2019) used alginate, sawdust, sugarcane bagasse to immobilize α -amylase enzyme for the saccharification of starch. The conjugates of bagasse-alginate showed the best result for immobilization and saccharification. Several studies have reported the use of magnetic nanoparticles for immobilization of α -amylase (Dhavale et al., 2018; Bindu et al., 2018; Desai et al., 2021)

2.3 Importance of the proposed project in the context of current status

At present, various kinds of carriers have been used for immobilization of the saccharification enzymes. They are immobilized by adsorption, covalent coupling, and entrapment. Although the adsorption based processes are simple and cost-effective the detachment of enzyme is a common phenomenon. Covalent coupling can overcome this limitation since this process involve strong covalent bonding or cross-linking between the enzyme and carrier. Though, it assures efficient stability via strong attachments, the active site may sometimes get blocked. The nanoparticle based immobilization processes need surface activation of nanoparticle surface. The activation chemical may reduce the enzyme activity. The nanoparticle synthesis processes may need to use toxic chemicals. It is expected that immobilization carriers should be resistant to physical, chemical, and biological stress. Few of the currently used matrices fail to achieve it and enzyme leakage occurs.

The proposed process of immobilization of saccharification of enzymes in organic-inorganic nanohybrid may overcome these issues. The organic-inorganic nanohybrid exhibited several advantages as carriers for enzyme immobilization. It is much easier to prepare and does not need any toxic chemicals, complex covalent modification/organic solvents. A hierarchical porous nanohybrid morphology increases the specific surface area to volume ratio and allow high enzyme loading resulting in enhanced catalytic activity compared to free form. The porous structure reduce mass transfer inhibition. Hence, enhanced catalytic activity of enzymes is achievable. In a previous study, a soyabean peroxidase (SBP) nanohybrid was synthesized by our group. We found that the binding sites were different than active site of SBP enzyme. The unique porous nanohybrid structure provides a favorable microenvironment and improve the enzyme's stability. The nanohybrids are known for simultaneous immobilization of multiple enzymes/proteins. This will favorably position co-enzymes in close proximity to improve enzymatic efficiency and reduce the saccharification time. The cost of chemicals required to form nanohybrids is cheaper compared to conventional chemicals.

2.4 If the project is location specific, basis for selection of location be highlighted:

Not Applicable

3. Work Plan:

3.1 Methodology:

Screening of appropriate biocatalysts and biomass

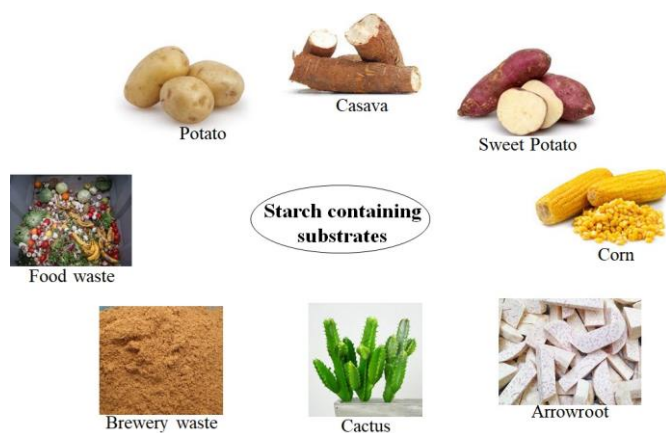


Fig. 1. Starch containing biomass sources.

Starch biomass can be obtained from variety of sources eg, potato, cassava pulp, sweet potato, corn, arrowroot, cactus, brewaery waste and food waste (Fig. 1). It is a cheap and abundant renewable carbon source and can be used for bioethanol production. Their use may help to develop low cost ethanol production processes with a suitable energy balance in order to foster the development of a low-carbon society. Pretreatment of biomass includes cleaning, peeling, chipping and drying. The starch content will be determined using anthrone method as described by Thayumanavan and Sadasivam (1984). Moisture and ash contents will be calculated following methods AOAC 934.01 and 932.01. Protein content will be obtained by the Kjeldahl method (Lynch and Barbano, 1999).

Enzyme ativity determination for α -amylase, glucoamylase and pullulanase

Various enzymes such as amylase, amyloglucosidase, pullulnase will be procured. The α -amylase assay will be performed using the chromogenic DNSA method (Sudha et al., 2011). The assay mixture will be composed of 500 μ l of sodium phosphate buffer, suitable amount of enzyme. It will be incubated at 37°C for 10 min. After pre-incubation, 500 μ l of 1% (v/v) starch solution in the above buffer will be added to each tube and incubated at 37°C for 15 min. The reaction will be terminated with 1.0 ml DNSA reagent, placed in boiling water bath for 5 min, cooled to room temperature, diluted and the absorbance will be measured at 540 nm. One unit of enzyme activity will be defined as the amount of enzyme required to release one micromole of maltose from starch per min under the assay conditions. Activity of pullulanase will be estimated using a protocol developed by Roy and Gupta (2004). One enzyme unit liberates 1 (xmol of reducing sugar (calculated as glucose) per minute at 40 °C and pH 5.0 (Roy and Gupta, 2004). Hassan et al. (2019) studied transformation of starch into glucose by glucoamylase. They determined glucoamylase activity by using the dinitrosalicylic acid (DNS) method. Glucoamylase activity was measured by mixing enzyme with starch and incubated it for 10 min at 50 °C. Enzyme

reaction was stopped by adding DNS and boiling it for 5 min. Absorbance was measured at 540 nm. One unit of enzyme activity was equivalent to the amount of enzyme required to produce 1 μmol glucose/min (Hassan et al., 2019). The glucoamylase activity will be determined by following similar process.

Liquefaction, enzymatic hydrolysis and saccharification of biomass starch

The hydrolysis of the starch needs to be carried out for the bioethanol production from starch-containing biomass. The enzymes convert biomass starch into glucose syrup, which can be converted into ethanol by yeast *Saccharomyces cerevisiae*. The biomass containing starch will be suspended in water, pH 7. The liquefaction will be carried out as described by (Hofvendahl et al., 1999). Starch hydrolysing ability of amylase, amyloglucosidase, pullulanase will be tested. Enzymes concentrations used for hydrolysis of starch will be optimized by following a method described by Toru et al., (2013). Reducing sugars, after liquefaction and hydrolysis will be estimated by DNS method and measured using a spectrophotometer at 550 nm (Hassan et al., 2019; Larrea et al., 2020). Park et al., (2005) described glucose and the protein detection processes. Accordingly they will be detected in enzymically hydrolyzed samples. The samples for glucose detection will be mixed with 3ml of diagnostic reagent. After incubation for 15 min at 30 °C in a water bath, the absorbance was measured at 505 nm. For the measurement of protein sample solution will be mixed with biuret reagent, and allowed to stand at room temperature for 10 min. Then the mixture was incubated with 0.1 ml of phenol reagent at room temperature for 30 min. The absorbance was measured at 725 nm (Park et al., 2005).

Synthesis of nanohybrid with and without SEs

Various saccharification enzymes such as α -amylase, glucoamylase and pullulanase will be used for nanohybrid synthesis. The nanohybrids of individual enzymes and mixture of these enzymes (for co-immobilization) will be synthesized adopting previously optimized process (as shown in above illustration). Also nanohybrid without enzymes will be synthesized. Typically, enzyme solution will be separately added into the mixture containing 50 mL of 10 mM PBS (pH 7.4) and 200 mM CuSO_4 . Then each mixture shall be vortexed for 30 s, and then shall be incubated at 4 °C for 3 days without disturbing. The precipitates occurred at the bottom of reaction tubes shall be collected and washed with buffer using centrifugation at 10,000 rpm for 15 min. The final products shall be dried at 4 °C to get nanohybrid powder. Similar process will be followed for synthesis of nanohybrid without enzyme. To achieve it all above chemicals shall be mixed together except enzymes.

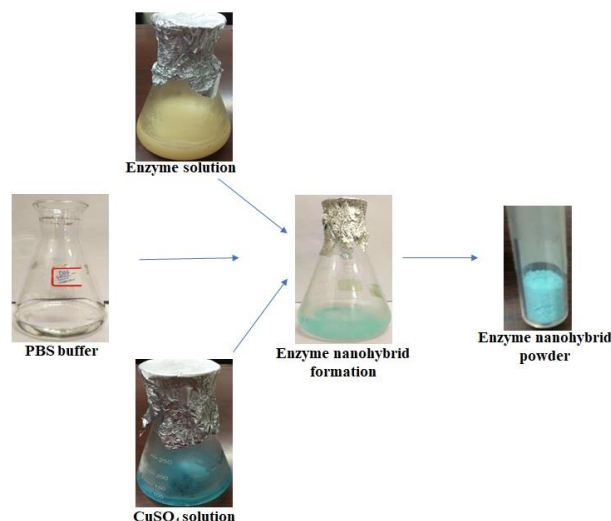


Fig. 2. Organic-inorganic nanohybrid synthesis process.

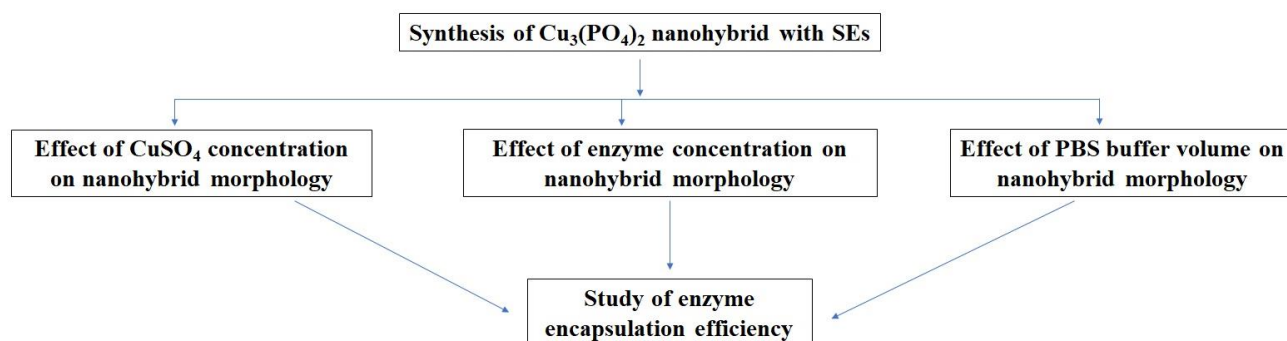
Various saccharification enzymes such as α -amylase, glucoamylase and pullulanase will be used for nanohybrid synthesis. The nanohybrids of individual enzymes and mixture of these enzymes (for co-immobilization) will be synthesized adopting previously optimized process (as shown in Fig. 2). Also nanohybrid without enzymes will be synthesized. Typically, enzyme solution will be separately added into the mixture containing 50 mL of 10 mM PBS (pH 7.4) and 200 mM CuSO_4 . Then each mixture shall be vortexed for 30 s, and then shall be incubated at 4 °C for 3 days without disturbing. The precipitates occurred at the bottom of reaction tubes shall be collected and washed with buffer using centrifugation at 10,000 rpm for 15 min. The final products shall be dried at 4 °C to get nanohybrid powder. Similar process will be followed for synthesis of nanohybrid without enzyme. To achieve it all above chemicals shall be mixed together except enzymes.

Characterization of nanohybrid

The nanohybrid with and without chlorophyllin shall be characterized using Scanning Electron Microscopy (SEM), Fourier Transform Infrared Spectroscopy (FTIR), Energy Dispersive X-Ray and X-Ray Diffraction (XRD) analysis, UV-vis spectrophotometer.

Optimization of nanohybrid synthesis

The nanohybrid with saccharification enzymes such as α -amylase, glucoamylase and pullulanase will be synthesized. The nanohybrid will be synthesized for immobilization of individual enzymes as well as coimmobilization of all these enzymes in single nanohybrid. The varying CuSO_4 concentration, enzyme concentration and PBS buffer volume will be used to optimize the nanohybrid synthesis process.



The enzyme encapsulation yield (EY) will be determined by finding the ratio of the amount of enzyme immobilized to total amount of enzyme used. The enzyme concentration in the supernatant after centrifugation will be determined.

Optimization of the catalytic activity of free and nanohybrid SEs

Determination of optimum pH, temperature for both free and nanohybrid immobilized SEs will be assayed as described by Hassan et al. (2019). The activity measured at optimum pH and temperatures will be taken as the 100% activity, and the other activities at other pH and other temperatures values will be expressed as a percentage of this optimum 100% activity.

Stability and Reusability

The storage stability of free and nanohybrid immobilized SEs will be determined at varying temperatures. Samples will be withdrawn at regular intervals over the incubation of 30 days to measure the residual activity of SEs (Hassan et al., 2019). The reusability of the free and nanohybrid immobilized SEs will be tested. The nanohybrid immobilized SEs will be used in glucose production from starch for many times and after each reaction, the nanohybrid will be washed well by using a buffer and reassayed again and the initial activity was considered as 100%. The relative activity was expressed as a percentage of the starting operational activity.

The Fermentation process

Fermentations will be carried out either in a sequential or simultaneous saccharification/fermentation (SSF) manner as described by (Larrea et al., 2020). For the sequential fermentation process, all the required materials will be sterilized in a steam autoclave at 150 °C for 15 minutes. The previously prepared enzymatic hydrolysate using enzymes immobilized in nanohybrid will be mixed with a suitable *Saccharomyces cerevisiae* and incubated for alcohol production. For simultaneous SSF, starch hydrolysing enzymes immobilized in nanohybrid form will be added along with the yeast after liquefaction. After every

24 h the fermentation samples will be taken to analyze reducing sugars and quantify ethanol production.

3.2 Time Schedule of activities giving milestones through BAR diagram.

Sr. No.	Milestones	Months				
		1-3	4-9	10-16	17-26	27-36
1	Procuring chemicals, consumables, enzymes & microbial cultures					
2	Advertising the project fellow position & hiring the manpower					
3	Screening of starch hydrolysing enzymes					
4	Screening of starch containing biomass and characterization					
5	Synthesis and characterization of SEs containing nanohybrid					
6	Optimization of process parameters for nanohybrid synthesis					
7	To study the saccharification ability of SEs containing nanohybrid					
8	Compare the sachharification process carried out by individual SEs nanohybrid and co-immobilized SEs nanohybrid					
9	Bioethanol production using the glucose produced and a suitable <i>Saccharomyces cerevisiae</i>					
10	Data analysis and manuscript preparation					
11	Sending Report to SERB					

3.3 Suggested Plan of action for utilization of research outcome expected from the project.

The cost of enzymes is limiting factor for the commercialization of biomass based bioethanol production process. If the enzymes can be recycled then it will help a lot to reduce the process cost and make it economically viable. Looking forward to set up the collaboration with food industries and farmers. The farmers can be encouraged to grow starch containing biomass along with their regular crop. This will help farmers to generate easy cash without compromising food security. The food industries can set up small bioethanol production plants at several locations. This will assure the consistent supply of biomass from the farmers to the industries. These type of activities can be run under Make in India and Swaccha Bharat initiatives.

3.4 Environmental impact assessment and risk analysis.

The proposed work do not have serious environmental impacts. Rather it will help to recycle the starch containing biomass and reduce its burden on environment. If successful then this will also help to reduce the import of fossil fuels and supports the use of biofuels which have less carbon footprints.

4. Expertise:

4.1 Expertise available with the investigators in executing the project:

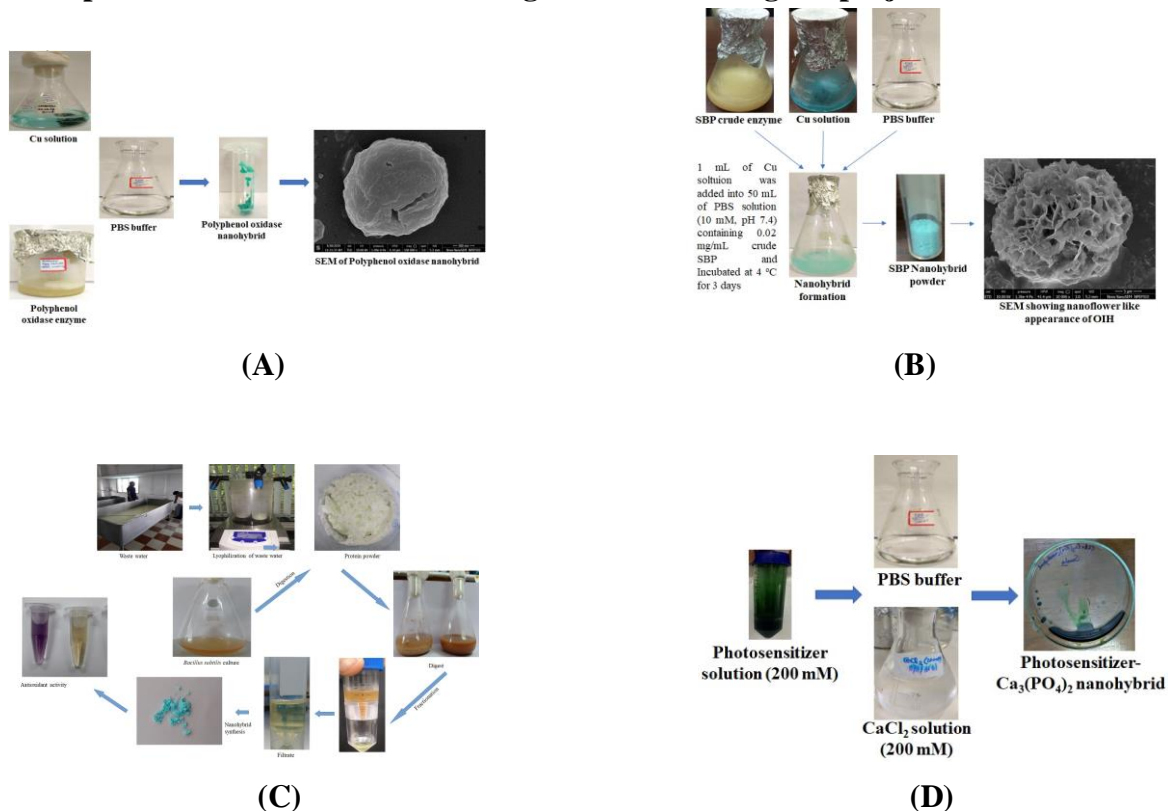


Fig 2. Synthesis of various types of nanohybrid (A) PPO nanohybrid (B) SBP nanohybrid (C) Antioxidant nanohybrid (D) Photoactive nanohybrid

Dr. Umesh Jadhav's research group successfully developed different types of organic-inorganic nanohybrids immobilizing various enzyme/proteins. Copper metal recycled from waste printed circuit board was used for the synthesis of polyphenol oxidase (PPO) enzyme. Various analytical techniques confirmed the formation of nanohybrid. The enhanced PPO activity was observed in nanohybrid compared to crude enzyme (Chandane et al., 2019). The as synthesized nanohybrid was further used for phenol degradation (Fig 2a). Another study was carried out for the synthesis of the soybean peroxidase (SBP) enzyme nanohybrid. SBP was extracted from soybean seeds.

The as synthesized SBP-nanohybrid was further used for degradation of dyes (Fig. 2b). In this study some bioinformatics tools were used to explore binding pattern of enzyme with copper phosphate. It was observed that the binding sites were different from that the active site of enzymes (Bhapkar et al., 2021). The SBP nanohybrid was also used for the development of electrochemical sensor for H₂O₂ detection (Manuscript under preparation). Recently dairy wastewater was used for generation of antioxidant peptides using microbial digestion process. The generated antioxidant peptides were successfully immobilized in copper phosphate nanohybrid (Fig. 2C). Also, developed photosensitizer immobilized nanohybrid for photodynamic killing of pathogens (Fig. 2D). Research is being carried out for synthesis of asparaginase containing nanohybrid for its possible application in development of point of care colorimetric leukemia detection sensor. The experience gained will help to successfully synthesize the saccharification enzymes containing nanohybrid. Dr. Umesh Jadhav have expertise in handling various microorganisms which help to develop bioethanol production process.

4.2 Summary of roles/responsibilities for all Investigators:

S. No.	Name of the Investigators	Roles/Responsibilities
1.	Dr. Umesh Jadhav	<ul style="list-style-type: none"> • Synthesis of nanohybrid with and without saccharification enzyme • Characterization of nanohybrid • Optimization of nanohybrid synthesis process • Comparison of saccharification ability of single and multiple enzyme nanohybrids • Optimization of saccharification process process
2.	Dr. Sandeep Pai	<ul style="list-style-type: none"> • Identification of starch containing biomass, • Determination of starch content, • Identification of suitable saccharification enzymes

4.3 Key publications published by the Investigators pertaining to the theme of the proposal during the last 5 years

Research Publications:

1. Pol R., Rahaman A., Diwakar M., Pable A., Jagtap S., Barvkar V., **Jadhav U. ***, Antioxidant peptide nanohybrid: A new perspective to immobilize bioactive peptides that are generated

- using milk industry wastewater (Manuscript under consideration by Environmental Science and Pollution Research).
2. Bhapkar S., Jagtap S., **Jadhav U. ***, Electrochemical biosensing of hydrogen peroxide using soybean peroxidase nanohybrid (Manuscript under preparation).
 3. Bhapkar S., Kumbhar N., Jagtap S., Gacche R., Barvkar T., Sonune D., Sonawane K., **Jadhav U. ***, (2021), Self-Assembly of soybean peroxidase nanohybrid for activity enhancement and dye decolorization: Experimental and computational studies. *J. Biomol. Struct. Dynam.* 22:1-11. doi: 10.1080/07391102.2021.1975566 (**IF: 3.310**).
 4. Chandane P., Jori C., Chaudhari H., Bhapkar S., Deshmukh S., **Jadhav U.***, (2020) Bioleaching of copper from large printed circuit boards for synthesis of organic-inorganic hybrid. *Environ. Sci. Pollut. Res.* 27:5797-5808 (**IF: 4.223**) (**Q2**).

Book Chapters:

1. Bhapkar S., Pol R., Patil D., Pable A., **Jadhav U. ***, ‘Whole cell application potential of extremophilic fungi in bioremediation’, a chapter in the edited book titled “Extremophilic fungi: Ecology, physiology and applications” S. Sahay, Ed.; 2022, Springer Nature DOI : 10.1007/978-981-16-4907-3.
2. Patil D., Dawkar V., **Jadhav U. ***, ‘Ecology and diversity of microaerophilic fungi including endophytes’, a chapter in the edited book titled “Extremophilic fungi: Ecology, physiology and applications” S. Sahay, Ed.; 2022, Springer Nature DOI : 10.1007/978-981-16-4907-3.

***: Corresponding author**

4.4 Bibliography

- Alnadari F, Xue Y, Zhou L, Hamed Y, Taha M, Foda M (2020) *Sci Rep* 10:1663.
- Al-Najada A, Almulaiky Y, Aldahri M, El-Shishtawy R, Mohamed S, Baeshen M, Farga A, Abdulaal W, Al-Harbi S (2019) *Sci Rep* 9:12672.
- Alvira P, Tomás-Pejó E, Ballesteros M, Negro M, (2010) *Biores Technol* 101:4861.
- Bankar S, Bule M, Singhal R, Ananthanarayan L (2011) *Int J Food Eng* 7:8.
- Bindu V, Shanty A, Mohanan P (2018) *Int J Biochem Biophys* 6:57.
- Brummer V, Jurena T, Hlavacek V, Omelkova J, Bebar L, Gabriel P, Stehlik P (2014) *Bioresour Technol* 152:547.
- Carpio C, Batista V, Ruales J (2009) *Food Bioproc Technol* 9:219.

Chakrabarti A, Storey K (1990) *Appl Microbiol Biot* 33:50.

Charles M, Ryan R, Ryan N, Oloruntoba R, (2007) *Ener Pol* 35:5746.

Desai R, Dave D, Suthar S, Shah S, Ruparelia N, Kikani B (2021) *Int J Biol Macromol* 169:238.

Dhavale R, Parit S, Sahoo S, Kollu P, Patil P, Patil P, Chougale A (2018) *Mater Res Express* 5 075403.

Długosz O, Matysik J, Matyjasik W, Banach M (2021) *J Cluster Sci* 32:1622.

Figueiredo F, Carval A, Brienzo M, Sila C, Neto P (2017) *Biores Technol* 228:170.

Haider T, Husain Q (2007) *Int J Biol Macromol* 41:80.

Han P, Zhou X, You C (2020) *Front Bioeng Biotechnol* 8:380.

Hassan M, Yang Q, Xiao Z (2019) *Bulletin Nat Res Centre* 43:102.

Hofvendahl K, kerberg C, Hahn-HaÈ (1999) *Appl Microbiol Biotechnol* 52:169.

Husain Q (2017) *JSM Biochem Mol Biol* 4: 1029.

Iyer P, Ananthanarayan L (2008) *Process Biochem* 43:1032.

Jaiswal N, Prakash O, Talat M, Hasan S, Pandey R (2012) *J Genetic Eng Biotechnol* 10:167.

Karp A, Halford N (2010) "Energy crops: introduction," in *Energy Crops*, eds A. Karp and N. G. Halford (Cambridge: The Royal Society of Chemistry), 1-12.

Khan M, Khan F, Husain Q (2011) *J Appl Biol Sci* 5:39.

Kikani B, Pandey S, Singh S (2013) *Bioprocess Biosyst Eng* 36:577.

Larrea F, Salzar S, Andino C, Ona D, Benalcazar M, Mora J, Almeida Streitwieser D, Alvarez-Barreto J (2020) *Chem Eng Transact* 80:264.

Limayem A, Ricke S (2012) *Prog Energ Combust Sci* 38:467.

Minakshi, Pundir C, (2008) *Ind J Biochem Bio* 45:115.

Mohapatra S, Mishra S, Bhalla P, Thatoi H, (2019) *Planta* 250:412.

Mohapatra S, Padhy S, Pradeep K, Mohapatra D, Thato H (2018) *Biores Technol* 253:272.

Park D, Haam S, Jang K, Ahn I, Kim W, (2005) *Process Biochem* 40:61.

Putro J, Soetaredjo F, Lin S, Ju Y, Ismadji S (2016) *RSC Adv.* 6:46852.

Roy I, Gupta M, (2004) *Enz Microb Technol* 34:32.

Saha S, Islam Z, Zohora U, Salahuddin M, Janee S, Rahman M (2019) *Jahangirnagar University J Biol Sci* 8:55.

Shukla J, Singh S (2016) *J Biol Macromol* 85:216.

Sindhu R, Kuttiraja M, Preeti V, Vani S, Sukumaran R, Binod P (2013) *Biores Technol* 135:72.

Sivaramakrishnan S, Gangadharan D, Madhavan N, Soccol C, Pandey A (2006) *Food Technol Biotechnol* 44:184.

Sudha P, Zinjarde S, Bhargava S, Kumar A (2011) BMC Complement Alternat Med 11:5.

Thayumanavan, B, Sadasivam S (1984) Qual Plant Foods Hum Nutr 34:253.

Toru M, Katsuya T, Seigo S (2013) Microb Biochem Technol 5:4.

5. List of Projects submitted/implemented by the Investigators

5.1 Details of Projects submitted to various funding agencies:

S. No	Title	Cost in Lakh	Month of submission	Role as PI/Co-PI	Agency	Status
1	Identification of Potent Inhibitors of Glycosyltransferase (pgaABCD) to Treat Biofilm Mediated Human Infections: Computational and Experimental Approach	64.60	May 2022	PI	DST-SERB	Under consideration

5.2 Details of Projects under implementation

S. No	Title	Cost in Lakh	Duration	Role as PI/Co-PI	Agency
1	Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination	20	2022-2024	PI	Indian Council of Medical Research

2	Multifunctional magnetic nanoparticles for efficient and sensitive detection of cancer and cardiac malfunction	55.50	Nov 2019- Oct 2022	Co-PI	RashtriyaUcch Shiksha Abhiy
---	--	-------	-----------------------	-------	--------------------------------

5.3 Details of Projects completed during the last 5 years

S. No	Title	Cost in Lakh	Duration	Role as PI/Co-PI	Agency
1	Synthesis, Characterization and Application of Novel Nanoparticles for Potential Application in Medicine and Biotechnology	17.0	2018-2019	PI	UPE- Nanobiotechn ology

6. List of facilities being extended by parent institution(s) for the project implementation.

6.1 Infrastructural Facilities

Sr. No.	Infrastructural Facility	Yes/No/ Not required Full or sharing basis
1.	Workshop Facility	Not required
2.	Water & Electricity	Yes
3.	Laboratory Space/ Furniture	Yes
4.	Power Generator	No
5.	AC Room or AC	Yes
6.	Telecommunication including e-mail & fax	Yes
7.	Transportation	Not required
8.	Administrative/ Secretarial support	Yes
9.	Information facilities like Internet/Library	Yes
10.	Computational facilities	Yes
11.	Animal/Glass House	Not required

12.	Any other special facility being provided	Not required
-----	---	--------------

6.2 Equipment available with the Institute/ Group/ Department/Other Institutes for the project:

Equipment available with	Generic Name of Equipment	Model, Make & year of purchase	Remarks including accessories available and current usage of equipment
PI & his group	NA	NA	NA
PI's Department	Walk in incubator Walk in cold room Autoclave Oven Spectrophotometer	NLWI892SI NLWI567SI Equitron Biotechnics India Shimadzu UV-1800 ENG240VSOFT	Under use Under use Under use Under use Under use
Other Institute(s) in the region	NA	NA	NA

7. Name and address of experts/ institution interested in the subject / outcome of the project.

Sr. No.	Name	Designation	Address
1	Dr. Manohar Padul	Head	Department of Biochemistry, Government Institute of Science, Mumbai, Maharashtra Phone: +91-7588522298 E-mail: manoharpadul@yahoo.co.in
2	Dr. Sandeep Panda	Assistant Professor	Department of Industrial Biotechnology Gujarat Biotechnology University (GBU), Gandhinagar, Gujarat - 382355, INDIA Phone: +91-6372551710 Email: sandeep.panda@gbu.edu.in
3	Dr. Mansingraj Nimbalkar	Assistant Professor	Department of Botany, Shivaji University, Kolhapur, Maharashtra Phone: +91-9270838273, E-mail: mansingrajsu@gmail.com

8. Previous Projects Details (If Any)

S. No	Project Title	PI Name	CO-PI Name	Amount (Rs/Lakh)	Status	Date Of Start	Date Of Completion	Funding Agency
1	Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination	Dr. Umesh Jadhav	Dr. Shweta Jagtap, Dr. Sandeep Pai	20	Sanctioned	Expected in 2022	Depending on start date, it will be completed in 2024	ICMR
2	Multifunctional magnetic nanoparticles for efficient and sensitive detection of cancer and cardiac malfunction	Dr. Atul Bharde	Dr. Umesh Jadhav	55.50	Ongoing	Nov 2019	Oct 2022	RashtriyaUcchatar S Abhiyan (RUSA)
3	Synthesis, Characterization and Application of Novel Nanoparticles for Potential Application in Medicine and Biotechnology	Dr. Umesh Jadhav	--	17	Completed	2018	2019	UPE- Nanobiotechnology

Budget Details

Institution wise Budget Breakup :

Budget Head	Savitribai Phule Pune University	Total
Research Personnel	14,40,000	14,40,000
Consumables	7,00,000	7,00,000
Travel	60,000	60,000
Contingencies	2,00,000	2,00,000
Overhead	1,20,000	1,20,000
Total	25,20,000	25,20,000

Institute Name : *Savitribai Phule Pune University*

Year Wise Budget Summary (Amount in INR) :

Budget Head	Year-1	Year-2	Year-3	Total
Research Personnel	4,80,000	4,80,000	4,80,000	14,40,000
Consumables	4,00,000	2,00,000	1,00,000	7,00,000
Travel	25,000	25,000	10,000	60,000
Contingencies	1,00,000	50,000	50,000	2,00,000
Overhead	50,250	37,750	32,000	1,20,000
Grand Total	10,55,250	7,92,750	6,72,000	25,20,000

Research Personnel Budget Detail (Amount in INR) :

Designation	Year-1	Year-2	Year-3	Total
Project Associate-I <i>A dedicated research personnel is required for successful implementation of the project</i>	4,80,000	4,80,000	4,80,000	14,40,000

Consumable Budget Detail (Amount in INR) :

Justification	Year-1	Year-2	Year-3	Total
<i>Required to purchase chemicals, microbial growth media, enzymes, glassware, plasticware</i>	4,00,000	2,00,000	1,00,000	7,00,000

Travel Budget Detail (Amount in INR) :

Justification (Inland Travel)	Year-1	Year-2	Year-3	Total
<i>To cover the charges required to for sample collection, To cover the charges required to attend the conferences, To cover the charges required to attend the SERB meetings</i>	25,000	25,000	10,000	60,000

Contingency Budget Detail (Amount in INR) :

Justification	Year-1	Year-2	Year-3	Total
<i>Required for paying charges of use of services like SEM, XRD, FTIR Paying registration fees of conferences Paying article publication charges Paying fees for patent application</i>	1,00,000	50,000	50,000	2,00,000

Overhead Budget Detail (Amount in INR) :

Justification	Year-1	Year-2	Year-3	Total
<i>Overhead charges at the rate of 5 % are considered.</i>	50,250	37,750	32,000	1,20,000

PROFORMA FOR BIO-DATA

1. Name and full correspondence address: Dr. Umesh Uttamrao Jadhav, Department of Microbiology, Savitribai Phule Pune University, Ganeshkhind, Pune-411007, Maharashtra, India
2. Email(s) and contact number(s): ujadhav@unipune.ac.in umeshjadhav02@gmail.com
Mob. No.: +91-7218921018 Phone No.:+91-2025690643
3. Institution: Savitribai Phule Pune University
4. Date of Birth: 02/12/1981
5. Gender (M/F/T): M
6. Category Gen/SC/ST/OBC: Gen
7. Whether differently abled (Yes/No): No
8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/Institution	% of Marks
1	Bachelor of Science	2002	Microbiology, Chemistry, Analytical Chemistry	Swami Ramanand Teerth Marathwada University	66.62
2	Master of Science	2004	Biotechnology	Swami Ramanand Teerth Marathwada University	65.16
3	Doctorate of Philosophy	2009	Environmental Biotechnology	Shivaji University	NA

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.:

Enzymes: A Pollution Control Tool For Textile Dyes; Dr. Sanjay P. Govindwar; Department of Biochemistry, Shivaji University Kolhapur; 2009

10. Work experience (in chronological order).

S. No.	Positions held	Name of the Institute	From	To	Pay Scale
1	Assistant	Savitribai Phule Pune	November	till date	Rs. 15600-

	Professor	University, Pune	2016		39100/-with AGP Rs. 6000/-
2	Senior research fellow	Nanyang Technological University, Singapore	November 2015	November 2016	5000 SGD
3	Postdoctoral researcher	National Tsing Hua University	August 2015	October 2015	63000 NTD
4	Postdoctoral researcher	National Tsing Hua University	August 2014	July 2015	61000 NTD
5	Postdoctoral researcher	National Tsing Hua University	August 2012	July 2014	59000 NTD
6	Research assistant	National Tsing Hua University	February 2012	July 2012	36000 NTD
7	Postdoctoral researcher	National Tsing Hua University	March 2010	January 2012	55000 NTD
8	Assistant Professor	N. A. C. & S., college, Ahmednagar	September 2008	January 2010	18000 INR
9	Teaching Assistant	Shivaji University, Kolhapur	August 2006	April 2008	5000 INR
10	Assistant Professor	Rajarshi Shahu College, Latur	December 2004	May 2006	6000 INR

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S. No.	Name of Award	Awarding Agency	Year
1	Postdoctoral research fellowship	Nanyang Technological University, Singapore	November 2015
2	Postdoctoral research fellowship	National Science Counsel	August 2015
3	Postdoctoral research fellowship	National Science Counsel	August 2014
4	Postdoctoral research	National Tsing Hua University	August 2012

	fellowship		
5	Postdoctoral research fellowship	National Tsing Hua University	March 2010

12. Publications (*List of papers published in SCI Journals, in year wise descending order*).

Sr. No.	Authors	Title of Paper	Name of the Journal,	Volume	Page Numbers	Years
1	Bhapkar S., Kumbhar N., Jagtap S., Gacche R., Barvkar T., Sonune D., Sonawane K., Jadhav U.*	Self-Assembly of soybean peroxidase nano hybrid for activity enhancement and dye decolorization: Experimental and computational studies	J. Biomol. Struct. Dynam.	22	1-11	2021
2	Jadhav U.* , Gawade T., Bhapkar S., Bharde A.	Exploration of intrinsic peroxidase like activity of <i>Acidithiobacillus ferrooxidans</i> spent medium and its application for glutathione detection.	Arch. Microbiol.	203	2615-2623	2021
3	Bhapkar S., Kumbhar N., Gacche R., Jagtap S., Jadhav U.*	Photodynamic therapy (PDT): an alternative approach for combating COVID-19.	Biointer. Res. Appl. Chem.	11	12808-12830	2021
4	Parit S., Karade V., Patil R., Pawar N., Dhavale R., Tawre M., Pardesi K., Jadhav U. , Dawkar V., Tanpure R., Kim J., Jadhav J., Chougale A.,	Bioinspired synthesis of multifunctional silver nanoparticles for enhanced antimicrobial and catalytic applications with tailored SPR properties	Mater. Today Chem.	17	100285	2020
5	Chandane P., Jori C., Chaudhari H., Bhapkar S., Deshmukh S., Jadhav U.* ,	Bioleaching of copper from large printed circuit boards for synthesis of organic-inorganic hybrid.	Environ. Sci. Pollut. Res.	27	5797-5808	2020
6	Chandane P., Ladke J., Jori C., Deshmukh S., Zinjarde S., Chakankar M., Hocheng H.,	Synthesis of magnetic Fe ₃ O ₄ nanoparticles from scrap iron and use of their peroxidase like activity for phenol detection,	J. Environ. Chem. Eng.	7	103083	2019

	Jadhav U.*					
7	Jadhav U.* , Su C., Chakankar M., Hocheng H.,	Leaching of metals from waste silver oxide-zinc button cell batteries by <i>Aspergillus niger</i> .	Batteries	4	51	2018
8	Biswal B., Jadhav U. , Madhaiyan M., Ji L., Yang E., Cao B.,	Biological Leaching and Chemical Precipitation Methods for Recovery of Co and Li from Spent Lithium-ion Batteries.	ACS Sust. Chem. Eng.	6	12343-12352	2018
9	Jadhav U. , Lahoti M., Chen Z., Qiu J., Cao B., Yang E., ()	Viability of bacteria in geopolymer and crack healing in bacteria-containing geopolymer.	Const. Build. Mater.	169	716-723	2018
10	Jadhav, U. , Biswal B., Chen Z., Yang E., Hocheng H.,	Leaching of metals from incineration bottom ash using organic acid.	J. Sust. Metall.	4	115-125	2018
11	Jadhav, U. , Su C., Chakankar M., Hocheng, H.,	Acetic Acid Mediated Leaching of Metals from Lead Free Solders.	Bioresour. Bioprocess.	4	42	2017
12	Jadhav, U. , Hocheng, H.,	Leaching of metals from large pieces of printed circuit boards using citric acid and hydrogen peroxide.	Environ. Science & Pollution Research	23	24384-24392	2016
13	Jadhav, U. , Hocheng, H.,	Study of <i>Acidithiobacillus ferrooxidans</i> and enzymatic bio-Fenton process mediated corrosion of copper-nickel alloy.	Environ. Technol.	37	2669-2677	2016
14	Jadhav, U. , Su C., Hocheng, H.,	Leaching of metals from pre-treated printed circuit board powder by <i>Aspergillus niger</i> culture supernatant and hydrogen peroxide.	RSC Advances	6	43442-43452	2016
15	Jadhav, U. , Hocheng, H.,	Recovery of phosphorus from source separated urine by <i>Acidithiobacillus ferrooxidans</i> culture supernatant.	Ecological Engineering	92	90-96	2016
16	Jadhav, U. , Hocheng, H.,	Hydrometallurgical recovery of metals from large printed circuit board pieces.	Scientific Reports	0.1038/srep	--	2015
17	Jadhav, U. , Hocheng, H.,	Waste solder and printed circuit board: the emerging secondary sources for recovery of metals.	Archives of Material Science and Engineering	72	5-15	2015

18	Jadhav, U., Hocheng, H.,	Enzymatic bioleaching of metals from printed circuit board.	Clean Technology and Environmental Policy	17	947-956	2015
19	Jadhav, U., Hocheng, H.,	Bioleaching of thermal power plant fly ash by <i>Aspergillus niger</i> 34770 culture supernatant for removal of metals and reduction of phytotoxicity during the process.	Applied Biochemistry Biotechnology	175	870-881	2015
20	Hocheng, H., Su, C., Jadhav, U.,	Bioleaching of metals from steel slag by <i>Acidithiobacillus thiooxidans</i> culture supernatant.	Chemosphere	117	652-657	2014
21	Hocheng, H., Hong, T., Jadhav, U.,	Microbial Leaching of Waste Solder for Recovery of Metal.	Applied Biochemistry Biotechnology	173	193-204	2014
22	Jadhav, U., Hocheng, H.,	Use of <i>Aspergillus niger</i> 34770 culture supernatant for tin metal removal.	Corrosion Science	82	248-254	2014
23	Jadhav, U., Hocheng, H.,	Removal of nickel and cadmium from battery waste by a chemical method using ferric sulfate.	Environmental Technology	35	1263-1268	2013
24	Jadhav, U., Hocheng, H., Weng, W.,	Innovative use of biologically produced ferric sulfate for machining of copper metal and study of specific metal removal rate and surface roughness during the process.	Journal of Materials Processing Technology	213	1509-1515	2013
25	Jadhav, U., Hocheng, H.,	Extraction of silver from spent silver oxide-zinc button cells by using <i>Acidithiobacillus ferrooxidans</i> culture supernatant.	Journal of Cleaner Production	44	39-44	2013
26	Jadhav, U., Salve, S., Dhwale, R., Padul, M., Dawkar, V., Chougale, A., Waghmode, T., Salve, A., Patil, M.,	Use of partially purified banana peel polyphenol oxidase in the degradation of various phenolic compounds and textile dye Blue 2RNL.	Textiles and Light Industrial Science and Technology	2	27-35	2013
27	Hocheng, H., Lin, T., Jadhav, U., Wong, W.,	Metal deposition on SiO ₂ by laser through culture supernatant of <i>Acidithiobacillus ferrooxidans</i> 13820.	Microelectronic Engineering	101	17-22	2013

28	Jadhav, U., Hocheng, H.,	A review of recovery of metals from industrial waste.	Journal of Achievements in Materials and Manufacturing Engineering	54	159-167	2012
29	Hocheng, H., Chang, J., Hsu, H.S., Han, H., Chang, Y., Jadhav U.,	Metal removal by <i>Acidithiobacillus ferrooxidans</i> through cells and extra-cellular culture supernatant in biomachining.	CIRP Journal of Manufacturing Science and Technology	5	137-141	2012
30	Hocheng, H., Jadhav, U., Chang, J.,	Biomachining rates of various metals by <i>Acidithiobacillus thiooxidans</i> .	International Journal of Surface Science and Engineering	6	101-111	2012
31	Hocheng, H., Chang, J., Jadhav, U.,	Micromachining of various metals by using <i>Acidithiobacillus ferrooxidans</i> 13820 culture supernatant experiments.	Journal of Cleaner Production	20	180-185	2012
32	Hocheng H., Jadhav U.,	Novel sustainable metal removal by biologically produced ferric sulphate	Proceedings of Second International Conference on Digital Manufacturing & Automation ICDMA	9/ICDMA	784-787	2011
33	Madhikar, S., Gadge, P., Yewle, J., Jadhav, U., Chougale, A., Zambare, V., Padul, M.,	Isolation, partial purification and characterization of lipase from sunflower germinating oil seeds.	International Journal of Biotechnology and Bioscience	1	410-415	2011
34	Gadge P., Madhikar, S., Yewle, J., Jadhav, U., Chougale, A., Zambare, V., Padul, M.,	Biochemical studies of lipase from germinating oil seeds (Glycine max),	American Journal of Biochemistry and Biotechnology	7 (3)	141-145	2011
35	Ghodake, G., Jadhav, U., Tamboli, D., Kagalkar, A., Govindwar, S.,	Decolorization of textile dyes and degradation of mono-azo dye amaranth by <i>Acinetobacter calcoaceticus</i> NCIM 2890.	Indian Journal of Microbiology	51(4)	501-508	2011
36	Jadhav, U., Kadu, S., Thokal, N., Padul, M., Dawkar, V., Chougale, A., Salve, A., Patil, M.,	Degradation of tannic acid by cold-adapted <i>Klebsiella sp</i> NACASA1 and phytotoxicity assessment of tannic acid and its degradation products.	Environmental Science and Pollution Research	18	1129-1138	2011

37	Jadhav, U., Dawkar, V., Kagalkar, A., Govindwar, S.,	Effect of metals on decolorization of Reactive blue HERD by <i>Comamonas</i> sp UVS.	Water Air Soil Pollution	216	621-631	2011
38	Jadhav, U., Dawkar, V., Jadhav, M., Govindwar, S.,	Decolorization of the textile dyes using purified banana pulp polyphenol oxidase.	International Journal of Phytoremediation	13	357-372	2011
39	Chougale, A., Bhosale, P., Jadhav, U., Padul, M.,	Antibacterial and antioxidant activity of plant latex.	Journal of Pharmacy Research	4	406-407	2011
40	Tamboli, D., Gomare, S., Kalme, S., Jadhav, U., Govindwar, S	Degradation of Orange 3R, mixture of dyes and textile effluent and production of polyhydroxyalkanoates from biomass obtained after degradation	Int. Biodeter. Biodeg.	64	755-763	2010
41	Dawkar, V., Jadhav, U., Tamboli, D., Govindwar, S.	Efficient industrial dye decolorization by <i>Bacillus</i> sp. VUS with its enzyme system.	Ecotoxicol. Environ. Safety	73	1696-1703	2010
42	Patil, R., Nimbalkar, M., Jadhav, U., Dawkar, V., Govindwar, S.	Antiaflatoxicogenic and antioxidant activity of an essential oil from <i>Ageratum conyzoides</i> L.	J. Sci. Food Agr.	90	608-614	2010
43	Dawkar, V., Jadhav, U., Jadhav, M., Kagalkar, A., Govindwar, S.	Decolorization and detoxification of sulphonated azo dye Red HE7B by <i>Bacillus</i> sp. VUS.	W. J. Microbiol. Biotechnol.	26	909-916	2010
44	Telke, A., Kalyani, D., Jadhav, U., Parshetti, G., Govindwar, S.	Purification and characterization of an extracellular laccase from a <i>Pseudomonas</i> sp. LBC1 and its application for the removal of bisphenol A.	J. Mol. Catalysis B: Enzymatic	61	252-260	2009
45	Dawkar, V., Jadhav, U., Ghodake, G., Govindwar, S.	Effect of inducers on decolorization and biodegradation of textile azo dye Navy blue 2GL by <i>Bacillus</i> sp. VUS.	Biodegradation	20	777-787	2009
46	Jadhav, U., Dawkar, V.,	Decolorization of Direct Blue GLL with enhanced lignin	J. Chem. Technol. Biotechnol.	84	126-132	2009

	Telke, A., Govindwar, S.	peroxidase enzyme production in <i>Comamonas</i> sp UVS.				
47	Jadhav, U. , Dawkar, V., Tamboli, D., Govindwar, S.	Purification and characterization of veratryl alcohol oxidase from <i>Comamonas</i> sp UVS and its role in decolorization of textile dyes.	Biotechnol. Biopro. Eng.	14	369-376	2009
48	Dawkar, V., Jadhav, U. , Telke, A., Govindwar, S.	Peroxidase from <i>Bacillus</i> sp. VUS and its role in the decolorization of textile dyes.	Biotechnol. Biopro. Eng.	14	361-368	2009
49	Jadhav, U. , Dawkar, V., Ghodake, G., Govindwar, S.	Biodegradation of Direct Red 5B, a textile dye by newly isolated <i>Comamonas</i> sp UVS.	J. Hazard. Mater.	158	507-516	2008
50	Jadhav, S., Jadhav, U. , Dawkar, V., Govindwar, S.	Biodegradation of disperse dye Brown 3REL by microbial consortium of <i>Galactomyces geotrichum</i> MTCC 1360 and <i>Bacillus</i> sp. VUS.	Biotechnol. Biopro. Eng.	13	232-239	2008
51	Dawkar, V., Jadhav, U. , Jadhav, S., Govindwar, S.	Biodegradation of disperse textile dye Brown 3REL by <i>Bacillus</i> sp VUS.	J. Appl. Microbiol.	105	14-24	2008

13. Detail of patents.: Hocheng H., **Jadhav U.**, Method for Recovering Metal from Printed Circuit Boards Using Hydrochloric acid. ROC Patent Number I585238, From 2017-06-01 to 2036-03-08

14. Books/Reports/Chapters/General articles etc.

S. No.	Title	Author's name	Publisher	Year of Publication
1	Whole cell application potential of extremophilic fungi in bioremediation	Bhaskar S., Pol R., Patil D., Pable A., Jadhav U. ,	Springer Nature	2022
2	Ecology and diversity of microaerophilic fungi including	D., Dawkar V., Jadhav U. ,	Springer Nature	2022

	endophytes Patil			
3	Recovery of silver from industrial wastes: strategies and technologies	Hocheng H., Chakankar M., Jadhav U.,	World Scientific Publishing Co.,	2018
4	Biohydrometallurgical Recycling of Metals from Industrial Wastes	Hocheng H., Chakankar M., Jadhav U.,	CRC Press	2017
5	Process of Biological Machining	Jadhav, U., Hocheng H.,	Springer-Verlag Berlin Heidelberg	2015
6	Laser Surface Patterning	Hocheng, H., Tsai, H., Jadhav, U., Wang, K., Lin, T.,	Elsevier Ltd.	2014
7	Biomachining- Acidithiobacillus Genus Based Metal Removal	Hocheng, H., Chang, J., Jadhav, U.	CRC Press	2012
8	Lignin: Properties and Applications in Biotechnology and Bioenergy	Dawkar, V., Jadhav, U., Chougale, A., Govindwar, S.	NOVA publishers	2012

15. Any other Information (maximum 500 words): NA

Permanent Address:

19/B, 'Smruti Kunj'
Siddheshwar Nagar,
Opp. B. V. P. College,
Bijapur Road,
Solapur – 413 004
Maharashtra
INDIA

Contact Address:

Department of Botany,
Rayat Shikshan Sanstha's
Dada Patil Mahavidyalaya,
Karjat – 414 402
Dist. Ahmednagar
Maharashtra
INDIA

Mobile: +91-9036762911

Email: drpaisr.sppu@gmail.com; drpaisr@gmail.com

PERSONAL PROFILE:

Citizen : INDIAN
Date of Birth : June 13, 1979
Marital Status : Married
Languages : Can read, write and speak English, Hindi and Marathi
Can speak Konkani and manage with Kannada

**RESEARCH INTEREST:**

Translational and Integrative research in Medicinal plants, Medicinal plants in health, Plant metabolites, Secondary metabolites, Elicitation, Plant tissue culture and molecular biology

SUBJECTS TAUGHT:

Plant Biotechnology, Plant Sciences, Plant Physiology, Analytical instrumentation, Advanced Instrument, Basic Biochemistry, Plant Molecular Biology, Plant genetics, Cytogenetic and plant breeding.

EDUCATION:

Ph. D. in Botany **July, 2010**

General topic of specialization: Life science, Biotechnology and phytochemistry

Duration: 01.07.2004 to 27.07.2010

Title: "Studies in Medicinal Plants *Ancistrocladus heyneanus* Wall. Ex Grah. And *Nothapodytes nimmoniana* (Grah.) Mabb."

Guide: Dr. G. B. Dixit, Professor, Laboratory of Cytogenetics and Plant Breeding

Organization: Department of Botany, Shivaji University, Kolhapur

M.Sc. in Botany **May, 2001**

Specialization: Cytogenetics and Plant breeding *Percentage:* 70.13%

PROJECTS SANCTIONED:

Sl No.	Project Scheme	Title	Agency	Amt (Rs.)	Position	Year
1	IRIS ID-2021-10581	Chlorophyllin Nanohybrid: New Horizons in Microbiological Safety of Fresh-Cut Produce Through Photodynamic Decontamination (Ongoing)	ICMR, New Delhi	18.00	Co-PI	2022
2	DST Fast Track SB/YS/LS-71/2013	Use of biotechnological approaches for enhanced production of triterpenoids from <i>Achyranthes aspera</i> Linn. (Completed)	SERB, DST, New Delhi	28.77	PI	2013
3	ICMR-PDF 3/1/3/PDF(2)/2012-HRD	Phytochemical and <i>in vitro</i> studies in <i>Ancistrocladus heyneanus</i> Wall ex Grah. and <i>Achyranthes aspera</i> Linn. (Completed)	ICMR, New Delhi	24.12	PI	2010

PATENT: One

Sl. No.	Applicants	Indian Patent Application No.	Title	Status	Date
1.	Nimbalkar MS, Chougale AS, Pawar NV, Kedage VV, Sandeep R. Pai	202021015343	A Composite comprising a receptor domain of angiotensin converting enzyme protein, and implementations thereof	Complete after provisional application	07/05/2021

CONSULTANCY AND INDUSTRY PROJECTS:

Sl No.	Title	Agency	Role	Year
1.	Separation of Curcuminoids from <i>Curcuma Longa</i> (Rs. 0.25 Lakhs), 3 months (Consultancy)	Biomax, Mumbai	Co-PI	2018
2.	Production of gum for drilling fluids using biotechnological approach (Rs. 23.41 Lakhs), 3 months (Tech-Transfer)	Gumpro Drilling fluids, Mumbai	Co-PI	2018
3.	Separation of Phycocyanin from Spirulina powder (Rs. 0.10 Lakhs), 3 months (Consultancy)	Algene Biotech, Gujrat	Co-PI	2018
4.	Production of shikimic acid from <i>in vitro</i> cultures of selected medicinal plants from Western Ghats.	ICMR, New Delhi	Guided	2014
5.	Preparation of preliminary inventory and management plan for Medicinal Plant Conservation Areas (MPCAs) at Kanakumbi and Kakati in Belgaum	Karnataka Forest Department, Belagavi	Co-Investigator	2010
6.	Ecotourism Potential of selected Model - 01 sites in Eastern plains of Karnataka and Recommendations for their development	Karnataka Forest Department, Bangalore	Field Researcher	2003

SEED MONEY RESEARCH PROJECT:

Sl No.	Project Scheme	Title	Agency	Amount (Rs.)	Year
1	College Seed Money Research Grant	Phytochemical and antioxidant analysis of some medicinal plants	Dada Patil Mahavidyalaya, Karjat	15,000/-	2020

EXPERIENCE DETAILS: (Starting with recent)**Total Research and Teaching: 18.8 Years**

Sr. No.	Designation	Organization	Duration	
			From	To
Post-Doctoral: 11.1 years				
1.	Assistant Professor	Dada Patil Mahavidyalaya, Karjat	06.01.20	Till date
2.	Assistant Professor II	AIB, Amity University, Mumbai	03.08.16	05.01.20
3.	Scientist (DST-YS)	RMRC, ICMR, Belagavi	11.11.13	02.08.16
4.	ICMR- PDF	RMRC, ICMR, Belagavi	09.11.10	08.11.13
5.	Research Assistant	RMRC, ICMR, Belagavi	21.06.10	08.11.10
Doctoral: 6.1 years				
6.	Senior Research Fellow	Shivaji University, Kolhapur	10.12.06	31.03.08
7.	Junior Research Fellow	Shivaji University, Kolhapur	09.12.04	09.12.06
8.	Ph.D.	Shivaji University, Kolhapur	01.07.04	27.07.10
9.	Visiting Faculty Biotech	Shivaji University, Kolhapur	06.06.04	05.11.04
Pre Doctoral Research: 0.5 years				
10.	Laboratory Technician	Mahabeej Biotech, Nagpur	12.02.04	20.05.04
11.	Field Researcher	Envirosearch, Pashan, Pune	01.12.03	31.01.04
Pre Doctoral Teaching: 1.1 years				
12.	Lecturer Botany	C.B.K's B. College, Akkalkot	16.08.02	15.03.03
13.	Lecturer Botany	Sangmeshwar Coll., Solapur	10.08.01	28.02.02

OTHER EXPERTISE:

- Computer Knowledge:** Have completed Certificate Course in Computer Operation (C.C.C.O.) and comfortable with computer operations.
- Window XP Operating System, MS Office (MS Word, Excel, PowerPoint), Adobe (Photoshop).
- Bio-statistical analysis: Origin, Graph Pad, Biodiversity pro, SPSS,

Awards: # Eight

1. **'DHR Winter School Fellowship Award'** a training program in traditional medicine and Integrative Health from 15th November to 14th December 2018 at Interdisciplinary School of Health Sciences, Savitribai Phule Pune University, Pune in collaboration with Department of Health Research (DHR), Ministry of Health and Family Welfare, Government of India.
2. **Certificate of Participation** Awarded to the research paper "Pharmacognostic screening of *Piper trichostachyon* fruits and its comparative analysis with *Piper nigrum* using chromatographic techniques" Pharmacognosy Magazine, April-June 2016, Vol. 12, Issue 46, Suppl. 2. At Dr. P. D. Sethi memorial, National Awards-2016. By Anchrom, Pvt. Ltd. Mumbai.
3. **DST- Young Scientist Award**, Use of biotechnological approaches for enhanced production of triterpenoids from *Achyranthes aspera* Linn. SERB, DST, New Delhi. November, 2013.
4. **ICMR Post-Doctoral Award**, Phytochemical and in vitro studies in *Ancistrocladus heyneanus* Wall ex Grah. and *Achyranthes aspera* Linn. ICMR, New Delhi. 08, November, 2010
5. **BEST POSTER PRESENTATION AWARD** for the poster presented in National Seminar on Medicinal Plants "Scope and Future", held at Department of Botany, Shivaji University, Kolhapur, 6th and 7th November, 2012.
6. **EXCELLENCE IN PH. D. for poster and oral presentation** at Campaign on University Research and Training (COURT) held at Shivaji University, Kolhapur. October, 2007.
7. **SECOND PRIZE IN POSTER PRESENTATION** in National Seminar on Plant Resources of Western Ghats, held at IISC, Bangalore, 7th and 8th December 2006.
8. **BEST POSTER PRESENTATION AWARD** for the poster presented in National Symposium on Underutilized Horticultural Crops, held at IIHR, Bangalore, 8th and 9th June 2006.

TECHNICAL AND RESEARCH GUIDANCE:

B.E.	B. Tech.	M.Tech.	M.Sc.	M. Pharm.	MD Ayurveda	MD Dentistry	Ph.D.*
04	04	02	05	10	2	01	06

*Expertise provided, not as guide

SUMMARY OF PUBLICATIONS:

Total publication	:	72
Cumulative IF	:	94.702 (Clarivate analytics)
Researcher ID	:	F-3662-2016/ G-8009-2012

Google Scholar:

Total Publication	:	72	Total citation	:	851
i10 index	:	28	h index	:	16

SCOPUS Author ID : 23005924000

ORCID: <http://orcid.org/0000-0002-1133-8061>

Total Publication	:	62	Total citation	:	518
h index	:	12		:	

PAPERS PUBLISHED: # Seventy-two

Sr. No.	Paper Details	First /*Corr author	Cit.	IF#
2022				
1.	Joshi RK, Sandeep R. Pai , Nagarajan H, Vetrivel U. Identification of potentially bioactive compounds from <i>Blumea lacera</i> essential oil by gas chromatography-mass spectroscopy and molecular docking studies for targeting inflammatory bowel disease. Natural Product Research . https://doi.org/10.1080/14786419.2021.2025368 Q3	No	New	2.861
2021				
2.	Kletecka-Pulker M, Mondal H, Wang D, Parra RG, Maigoro AY, Lee S; Garg T, Mulholland EJ; Devkota HP, Konwar B, Patnaik SS; Lordan R, Nawaz FA, Tsagkaris C, Rayan RA, Louka AM, De R, Badhe P, Schaden E, Willschke H, Maleczek M, Boyina HK, Khalid GM, Uddin MS, Sanusi, Khan J, Odimegwu JI, Yeung AWK, Akram F, Sai CS, Bucher S, Paswan SK, Singla RK, Shen B, Lonardo SD, Tosevska A, Simal-Gandara J, Zec M, Burgos EG, Habijan M, Battino M, Giampieri F, Cianciosi D, Hernandez TYF, Quiles JL, Mezzetti B, BabiakaSB, Ahmed MEO, Piccard P, Urquiza MS, Depew JR, Schultz F, Sur D Sandeep R. Pai , Găman MA, Cenanovic M, Tzvetkov NT, Kharat KR, Sosa ATG, Sieber S, Tikhonov A, Tripathi SK, Atanasov AG*. Impacts of biomedical hashtag-based Twitter campaign: #DHPSP utilization for promotion of open innovation in digital health, patient safety, and personalized medicine Current Research in Biotechnology . 3, 146-153 Q1	No	01	--
3.	Desai SD, Sandeep R. Pai* , Desai ND* Optimization of Methods for Quantification of Arjunic Acid from Bark of <i>Terminalia arjuna</i> from Konkan Region, India. Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci. https://doi.org/10.1007/s40011-021-01264-9 Q3	Yes	--	0.396
4.	Gupta R, Sonawane T*, Sandeep R. Pai* , An overview on pharmaceutical properties and biotechnological advancement of <i>Withania coagulans</i> . Advances in Traditional Medicine https://doi.org/10.1007/s13596-021-00558-7 Q3	Yes	--	--
5.	Chavan JJ, Kshirsagar PR, Jadhav SG, Nalavade VM, Gurme ST, Sandeep R. Pai Elicitor-mediated enhancement of biomass, polyphenols, mangiferin production and antioxidant activities in callus cultures of <i>Salacia chinensis</i> L. 3 Biotech . 11, 285. https://doi.org/10.1007/s13205-021-02836-2 , Q2	No	--	2.406
2020				
6.	Bastikar VA, Bastikar A, Gupta PP, Sandeep R. Pai , Chhajed SS. Target related in silico analysis of Bergenin and tuberculosis management. Biomedicine 40(4) 474- 481 DOI: https://doi.org/10.51248/v40i4.322 Q4	No	--	--
7.	Ankad GM, Sandeep R. Pai , Hiremath J, Hegde HV, Traditional Horticulture Practices Increase the Production of Selected Withanolides in <i>Withania somnifera</i> (L.) Dunal—A RP-UFLC Analysis. Journal of Chromatographic Science 58(10):899-906, doi: 10.1093/chromsci/bmaa057 Q3	No	--	1.618
8.	Nimbalkar MS, Pawar NV, Sandeep R. Pai* , Dixit GB Synchronized variations in levels of essential amino acids during germination in grain Amaranth. Brazilian Journal of Botany 3: 481-491. Q2	Yes	03	1.296
9.	Kshirsagar PR, Sandeep R. Pai* , Vyavahare GD, Bapat VA, Desai NS. Prospecting alternative source of shikimic acid from clusiaceae of Western Ghats, India and evaluating discrepancies with reference to seasonal variation, developmental stage and sex of <i>Mammea suriga</i> . Industrial Crops and Products . 149, 112354 DOI: https://doi.org/10.1016/j.indcrop.2020.112354 Q1	Yes	--	5.645
2019				
10.	Kshirsagar PR, Chavan JJ, Gaikwad NB, Sandeep R. Pai , Bapat VA, Metabolite profiling, antioxidant potential and RP-UFLC determination of bioactive molecules from eight <i>Swertia</i> species, Biocatalysis and Agricultural Biotechnology . 23,101479 DOI: https://doi.org/10.1016/j.bcab.2019.101479 Q2	No	03	--
11.	Hegde S, Sandeep R. Pai, Bhagwat RM, Saini A, Rathore PK, Jalalpure SS, Hegde HV, Sugunan AP, Gupta VS, Kholkute SD, Roy S, Population genetic and phytochemical dataset of <i>Saraca asoca</i> : A traditionally important medicinal tree, Data in Brief , 104173 DOI: https://doi.org/10.1016/j.dib.2019.104173 Q1	No	--	--
2018				
12.	Kshirsagar PR, Pawar NV, Patil SP, Nimbalkar MS*, Sandeep R. Pai* Quantification of zerumbone, a potent tumour suppressor sesquiterpene from eleven	Yes	--	0.975

	accessions of <i>Curcuma longa</i> using RP-HPLC analysis. Indian Journal of Pharmaceutical Sciences . 80(6), 1159-1165 Q2			
13.	Hegde S, Sandeep R Pai , Bhagwat RM, Saini A, Rathore PK, Jalalpure SS, Hegde HV, Sugunan AP, Gupta VS, Kholkute SD, Roy S. <i>Genetic and phytochemical investigations for understanding population structures of Saraca asoca to develop conservation strategies</i> . Phytochemistry 156:43-54. DOI: 10.1016/j.phytochem.2018.08.016 Q1	No	06	4.072
14.	Chavan JJ, Mugganavar SA, Kshirsagar PR, Sandeep R. Pai , Pawar NV, <i>Micropropagation, metabolite profiling, antioxidant activities and chromatographic determination of bioactive molecules across in vitro conditions and subsequent field cultivation stages of 'Shampoo Ginger' (Zingiber zerumbet L. Roscoe ex Sm)</i> Biocatalysis and Agricultural Biotechnology . 16 79-89, DOI: https:// doi.org / 10.1016/ j. bcab. 2018. 07. 015 Q2	No	03	--
15.	Parit SB, Dawkar VV, Tanpure RS, Sandeep R. Pai , Chougale AD <i>Nutritional quality and antioxidant activity of wheatgrass (Triticum aestivum) un-wrap by proteome profiling and DPPH and FRAP assays</i> . Journal of Food Science , 83(8):2127-2139 Q3	No	17	3.167
16.	Sandeep R Pai* , Upadhya V., Hedge H.V., Joshi R.K. Kholkute S.D. <i>In vitro rapid multiplication and determination of triterpenoids in callus cultures of Achyranthes aspera Linn.</i> Indian Journal of Biotechnology . 17(1): 151-159. http://nopr.niscair.res.in/handle/123456789/44814 Q3	Yes	03	0.414
17.	Kshirsagar P.R. Hegde H.V. and Sandeep R. Pai* <i>Comparison of shikimic acid content: a precursor for drug against H5N1 from various plant species of Western Ghats, India</i> . National Academy of Science Letters . 41(6):399-402. DOI 10.1007/s40009-018-0687-1. Q2	Yes	03	0.331
18.	Sandeep R. Pai and Joshi R.K. <i>Optimized densitometric analysis for determination of triterpenoid isomers in Vitex negundo L. leaf</i> . National Academy of Science Letters . 41(5):323-327 DOI: https://doi.org/10.1007/s40009-018-0680-8 Q2	Yes	--	0.331
2017				
19.	Kolar FR*, Sandeep R. Pai Dixit GB <i>Delphinium malabaricum (Huth) Munz. : A Potential Ornamental Crop from Western Ghats</i> . Horticulture International Journal . 1(1) 1-6. DOI: 10.15406/hij.2017.01.00003	No	02	--
20.	Ghadage DM, Kshirsagar PR, Sandeep R. Pai , Chavan JJ* <i>Extraction efficiency, phytochemical profiles and antioxidative properties of different parts of Saptarangi (Salacia chinensis L.) – an important underutilized plant</i> . Biochemistry and Biophysics Reports . 24;12:79-90. DOI: 10.1016/j.bbrep.2017.08.012.	No	22	--
21.	Kedage V*, Lilwani S, Kamble M, Nimbalkar M, Sandeep R. Pai , Dixit GB, <i>Rapid in vitro multiplication protocol for Ceropogia noorjahaniae Ans., a critically endangered, endemic plant of the western Ghats</i> . Advances in Plants & Agriculture Research . 7(2):00253 DOI: 10.15406/apar.2017.07.00253	No	--	--
22.	Hegde S., Sandeep R. Pai and Roy S.* <i>Combination of DNA isolation and RP-HPLC analysis method for bark samples of Saraca asoca and its adulterant</i> . 3 Biotech . 7(3):208. doi: 10.1007/s13205-017-0791-9. Q2	No	06	2.406
23.	Hegde S., Hegde H.V., Jalalpure S., Peram M.R., Sandeep R. Pai* and Roy S. <i>Resolving identification issues of Saraca asoca from its adulterant and commercial samples using phytochemical markers</i> . Pharmacognosy Magazine (Suppl 2): S266–S272. DOI: 10.4103/pm.pm_417_16, Q2	Yes	13	1.085
2016				
24.	Subramanya M.D., Sandeep R. Pai , Ankad G.M., Hegde H.V., Roy S., Hoti S.L. <i>Simultaneous determination of vasicine and vasicinone by High-performance liquid chromatography in roots of eight Sida species</i> . AYU 37: 135-139. DOI: 10.4103/ayu.AYU_49_16	No	07	--
25.	Nikam K.S.*, Wingkar K.C., Kallur R.R., Joshi R.K. and Sandeep R. Pai , <i>Trends in cotinine level in urine samples of smokeless tobacco chewers from Belagavi region</i> . Medica Innovatica , 6(2) 15-21.	No	01	--
26.	Kshirsagar P.R., Gaikwad N.B., Sandeep R. Pai* , Bapat V.A. <i>Optimization of extraction techniques and quantification of swertiamarin and mangiferin by using RP-UFLC method from eleven Swertia species</i> , South African Journal of Botany , 108, 81-89, http://dx.doi.org/10.1016/j.sajb.2016.09.016 , Q2	Yes	13	2.315
27.	Kshirsagar P.R., Hegde H.V., and Sandeep R. Pai* <i>Storing of extracts in polypropylene microcentrifuge tubes yield contaminant peak during Ultra Flow Liquid Chromatographic analysis</i> . Pharmacognosy Magazine . 12(46): 303-306. DOI: 10.4103/0973-1296.185719, Q2	Yes	--	1.085
28.	Desai M., Pramod H.J., Upadhya V., Sailo L., Hegde H.V. and Sandeep R. Pai* <i>In vitro rapid multiplication protocol for ex situ conservation of the rare, endemic</i>	Yes	01	--

	<i>medicinal plant Achyranthes coynei. Planta Medica - Letters. 3(04): e87-e90 DOI: 10.1055/s-0042-105296</i>			
29.	Joshi R.K and Sandeep R. Pai, Reinvestigation of carvotanacetone after 100 years along with minor terpenoid constituents of <i>Blumea malcolmii</i> Hook. F. essential oil. Natural Product Research 30(20): 2368-2371 DOI 10.1080/14786419.2016.1174231 Q2	No	05	2.861
30.	Upadhy V., Sandeep R. Pai, Ankad G., Hegde H.V. Pharmacognostic screening of <i>Piper trichostachyon</i> fruit and comparative analysis with <i>Piper nigrum</i> using high performance thin layer chromatography and reverse phase -ultra flow liquid chromatography techniques. Pharmacognosy Magazine .12(Suppl. 2): S152-8. doi: 10.4103/0973-1296.182172 Q2	No	02	1.085
31.	Kshirsagar P.R., Gaikwad N.B., Panda S., Hegde H.V., Sandeep R. Pai* RP-UFLC- DAD quantification of anticancerous and antidiabetic drug mangiferin from eleven species of <i>Swertia</i> from India. Pharmacognosy Magazine . 12(45); Supp 1: 32-36. DOI: 10.4103/0973-1296.176105 Q2	Yes	09	1.085
32.	Sandeep R. Pai*, Upadhy V., Hegde H.V., Joshi R.K., Kholkute S.D. Determination of betulinic acid, oleanolic acid and ursolic acid from <i>Achyranthes aspera</i> using RP-UFLC-DAD analysis and evaluation of various parameters for their optimum yield. Indian Journal of Experimental Biology , 54(3) 196-202 Q2	Yes	16	0.818
33.	Sandeep R. Pai and Joshi R.K.* Variation in pentacyclic triterpenoids in different parts of four <i>Ocimum</i> species using Reverse Phase-High Performance Liquid Chromatography. Proceedings of National Academy of Science, Biological Sciences 87(4) 1153-1158 DOI 10.1007/s40011-015-0682-y Q3	Yes	02	0.396
34.	Ankad G.M., Pednekar H.D., Sandeep R. Pai, Hegde H.V., Roy S., Hoti S.L. Antimicrobial activity of leaf and root methanolic extracts from <i>Vinca pusilla</i> Murr. Plant Science Today 3(1): 6-8. DOI: http://dx.doi.org/10.14719/pst.2016.3.1.163. Q4	No	01	--
35.	Kshirsagar P.R., Sandeep R. Pai, Nimbalkar M.S., Gaikwad N.B.*RP-HPLC analysis of seco-iridoid glycoside swertiamarin from different <i>Swertia</i> species. Natural Product Research . 30(7): 865-868 DOI:http://dx.doi.org/ 10.1080/14786419. 2015. 1071366. Q2	No	26	2.861
2015				
36.	Upadhy V., Ankad G., Sandeep R. Pai, Hegde S.V., Hegde H.V.* Preliminary pharmacognostic screening of <i>Achyranthes coynei</i> stem. Journal of Ayurveda and Integrative Medicine .6(2),134-138. DOI: 10.4103/0975-9476.159076 Q2	No	04	--
37.	Ketkar P.M., Nayak S.U., Sandeep R. Pai, Joshi R.K.* Determining seasonal changes in three major phenolic compounds from bark of <i>Saraca asoca</i> in comparison with local market sample using RP-HPLC analysis. National Academy of Science Letters . 38(5) 403-407 DOI: 10.1007/s40009-015-0382-4 Q2	No	04	0.331
38.	Sharma S., Joshi R.K.*, Sandeep R. Pai, Modified UFLC-PDA method for determination of nitrosamines. Journal of Analytical Chemistry . 70(9), 1154- 1158, DOI: 10.7868 /S004445 021509 0145 Q4	No	01	1.069
39.	Upadhy V., Sandeep R. Pai*, Hegde H.V. Effect of method and time of extraction on total phenolic content in comparison with antioxidant activities in different parts of <i>Achyranthes aspera</i> . Journal of King Saud University - Science . 27, 204-208DOI: 10.1016/j.jksus.2015.04.004 Q1	Yes	29	4.011
40.	Kshirsagar P.R., Sandeep R. Pai, Nimbalkar M.S., Gaikwad N.B.* Quantitative determination of three pentacyclic triterpenes from five <i>Swertia</i> L. species endemic to Western Ghats, India using RP-HPLC analysis. Natural Product Research 29(19):1783-8 DOI: 10.1080/14786419.2015.1004174 Q2	No	18	2.861
41.	Subramanya M.D., Sandeep R. Pai, Upadhy V., Ankad G.*, Bhagwat S. S., Hegde H. V. Total polyphenolic contents and in vitro antioxidant activities of eight <i>Sida</i> species from Western Ghats, India. Journal of Ayurveda and Integrative Medicine . 6, 24-28. DOI: 10.4103/0975-9476.146544 Q2	No	18	--
42.	Ketkar P.M., Nayak S.U., Sandeep R. Pai, Joshi R.K.* Monitoring seasonal variation of epicatechin and gallic acid in the bark of <i>Saraca asoca</i> using RP-HPLC method. Journal of Ayurveda and Integrative Medicine . 6, 29-34.DOI: 10.4103/0975-9476.146568 Q2	No	08	--
43.	Ankad G., Upadhy V., Sandeep R. Pai*, Nimbalkar M.S., Hegde H.V., Joshi R.K., Kholkute S.D. Evaluating <i>Nothapodytes nimmoniana</i> population from three localities of Western Ghats using camptothecin (CPT) as phytochemical marker and selection of elites using a new content range chart method. Pharmacognosy Magazine . 11(41), 90-95 Q2	Yes	06	1.085

44.	Ankad G.M., Sandeep R. Pai , Upadhy V.*, Hurkadale P.J., Hegde H.V. Pharmacognostic evaluation of <i>Achyranthes coynei</i> leaf. Egyptian Journal of Basic and Applied Sciences . 2: 25-31, DOI: 10.1016/j.ejbas.2014.12.002	No	14	--
45.	Upadhy V., Ankad G., Sandeep R. Pai* , Hegde H.V. Comparative HPTLC analysis of stem and leaf of <i>Achyranthes coynei</i> with <i>Achyranthes aspera</i> . Plant Science Today . 2(1): 7-10, DOI: 10.14719/pst.2015.2.1.87 Q4	Yes	04	--
46.	Pawar N.V.*, Sandeep R. Pai , Nimbalkar M.S., Dixit G.B. RP-HPLC analysis of phenolic antioxidant compound 6-gingerol from in vitro cultures of <i>Zingiber officinale</i> Roscoe. Plant Science Today 2(1): 24-28, DOI: 10.14719/pst.2015.2.1.103 Q4	No	04	--
47.	Gadkar S.S., Sandeep R. Pai* , Pramod H.J., Hegde H.V., Kholkute S.D. Optimization of callus culture and extraction method for elevated production of phenolic antioxidants from <i>Jasminum malabaricum</i> Wight. National Academy of Science Letters 38(3): 225-229, DOI: 10.1007/s40009-014-0339-z Q2	Yes	01	0.331
2014				
48.	Ankad G., Upadhy U., Sandeep R. Pai , Roy S., Hegde H.V.* Comparative screening of biological activities and polyphenol content in extracts and essential oils of <i>Chloroxylon swietenia</i> DC. Proceedings of National Academy of Science, Biological Sciences 86(2) 463-467 DOI: 10.1007/s40011-014-0468-7 Q3	No	03	0.396
49.	Ankad G.M., Upadhy V., Sandeep R. Pai* , Hegde H.V., Roy S., Kholkute S.D. Total polyphenols, antioxidant and antimicrobial activity of leaves and stem bark extracts of <i>Allophylus cobbe</i> (L.) Raeusch. Proceedings of National Academy of Science, Biological Sciences . 86(1) 145-149 DOI:10.1007/s40011-014-0424-6 Q3	Yes	06	0.396
50.	Upadhy V., Ankad G.M., Sandeep R. Pai* , Hegde H.V., Kholkute S. D. Accumulation and trends in distribution of three triterpenoids from <i>Achyranthes coynei</i> determined using RP-UFLC analysis. Pharmacognosy Magazine , 10(40), 398-401 DOI: 10.4103/0973-1296.141761 Q2	Yes	13	1.085
51.	Sandeep R. Pai* and Joshi R.K. Distribution of betulinic acid in plant kingdom: A mini review. Plant Science Today , 1(3), 103-107. DOI: http://dx.doi.org/10.14719/pst.2014.1.3.58 Q4	Yes	13	--
52.	Sandeep R. Pai* , Upadhy V., Hegde H.V., Joshi R.K., Kholkute S.D. New report of triterpenoids betulinic acid (BA) along with oleanolic acid (OA) from <i>Achyranthes aspera</i> by RP-UFLC analysis and confirmation using HPTLC and FTIR techniques. Journal of Planar Chromatography - Modern TLC , 27(1), 38-41. DOI: 10.1556/JPC.27.2014.1.7 Q3	Yes	22	0.856
53.	Upadhy V., Sandeep R. Pai* , Sharma A.K., Hegde H.V., Kholkute S.D., Joshi R.K., Compound specific extraction of camptothecin from <i>Nothapodytes nimmoniana</i> and piperine from <i>Piper nigrum</i> using Accelerated Solvent Extractor (ASE). Journal of Analytical Methods in Chemistry , 2014, Article ID 932036, DOI: http://dx.doi.org/10.1155/2014/932036 Q2	Yes	15	2.193
2013				
54.	Kolar F.R.K.*, Sandeep R. Pai , Dixit G.B. EMS, sodium azide and gamma rays induced meiotic anomalies in <i>Delphinium malabaricum</i> (Huth) Munz. Israel Journal of Plant Sciences . 61(1-4): 64-72. DOI: 10.1080/07929978.2014.961395 Q3	No	02	0.721
55.	Upadhy V., Sandeep R. Pai* , Ankad G., Hurkadale P.J., Hegde H. V. Phenolic contents and antioxidant properties from aerial parts of <i>Achyranthes coynei</i> Sant.' Indian Journal of Pharmaceutical Sciences , 75(4): 483-486. DOI: 10.4103/0250-474X.119812 Q3	Yes	18	0.975
56.	Hegde H.V.*, Vinayak U., Sandeep R. Pai , Hegde G. R., Hosur G. and Mestha D. A preliminary inventory and management plan for medicinal plant conservation areas (MPCAS) at Kanakumbi and Kakati in Belgaum district of Karnataka. Indian Forester , 139(9): 843-850	No	03	--
57.	Sandeep R. Pai* , Pawar N.V., Nimbalkar M.S., Kshirsagar P.R., Kolar F.K., Dixit G.B. Seasonal variation in content of camptothecin from bark of <i>Nothapodytes nimmoniana</i> (Grah.) Mabb. using HPLC analysis. Pharmacognosy Research . 5(3): 223-228. DOI: 10.4103/0974-8490.112434 Q2	Yes	16	--
58.	Ankad G., Upadhy V.*, Sandeep R. Pai , Hegde H. V., Roy S. In vitro antimicrobial activity of <i>Achyranthes coynei</i> Sant. Asian Pacific Journal of Tropical Diseases 3(3): 930-935. DOI: 10.1016/S2222-1808(13)60039-0	No	13	--
2012				
59.	Nimbalkar M.S.*, Sandeep R. Pai , Pawar N.V., Dixit G.B. Free amino acid profiling in grain <i>Amaranth</i> using LC-MS/MS. Food Chemistry . 134(4): 2565-2569. DOI: 10.1016/j.foodchem.2012.04.057 Q1	No	66	7.514
60.	Patil R.P., Sandeep R. Pai , Pawar N.V., Shimpale V.B., Patil R.M. and Nimbalkar M.	No	37	11.176

S.* *Chemical characterization, mineral analysis and antioxidant potential of two underutilized berries (Carissa carandus and Eleagnus conferta) from Western Ghats of India. Critical Reviews in Food Science and Nutrition.52:4, 312-320. DOI: 10.1080/10408398.2010.500227 Q1*

2011				
61.	Sandeep R. Pai* , Upadhy V.S., Hegde H.V., Kholkute S.D. <i>Achyranthes coynei Santapau 1949 (Amaranthaceae) - An addition of endemic taxon to Flora of Karnataka, India. Journal of Threatened Taxa. 3(6): 1875-79.</i>	Yes	12	--
62.	Sandeep R. Pai* , Nimbalkar M.S., Pawar N.V., Dixit G.B. <i>Optimization of extraction techniques and quantification of Betulinic Acid (BA) by RP-HPLC method from Ancistrocladus heyneanus Wall. Ex. Grah. Industrial Crops and Products. 34: 1458-1464. DOI:10.1016/j.indcrop.2011.05.006 Q1</i>	Yes	47	5.645
63.	Pawar N.V.*, Sandeep R. Pai , Nimbalkar M.S., Dixit G.B. <i>RP-HPLC analysis of phenolic antioxidant compound 6-gingerol from different ginger cultivars. Food Chemistry. 126: 1330-1336. DOI:10.1016/j.foodchem.2010.11.090 Q1</i>	No	100	7.514
2010				
64.	Sandeep R. Pai* , Nimbalkar M.S., Pawar N.V., Patil R.P., Dixit G.B. <i>Seasonal discrepancy in phenolic content and antioxidant properties from bark of Nothapodytes nimmoniana (Grah.) Mabb. International Journal of Pharma and Biosciences. 1(3): 1-17.</i>	Yes	22	--
65.	Pawar N.V.*, Sandeep R. Pai , Nimbalkar M.S., Kolar F.K., Dixit G.B. <i>Induction of chlorophyll mutants in Zingiber officinale Roscoe by gamma rays and EMS. Emirates Journal of Food and Agriculture. 22(5): 406-411. Q3</i>	No	26	1.041
66.	Pawar N.V.*, Nimbalkar M.S., Sandeep R. Pai , Kolar F.K., Dixit G.B. <i>RP-HPLC analysis of 6-gingerol and assessment of antioxidant activities in EMS treated ginger. Journal of Phytochemistry. 2(3): 13-23.</i>	No	07	--
67.	Hurakadle P.J.*, Gadkar S.S., Sandeep R. Pai , <i>Callus culture studies on Jasminum malabaricum - An endemic medicinal plant. (Abstracts: 59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research), Planta Medica, 77 - PB31. DOI:10.1055/s-0031-1282285 Q1</i>	No	01	3.352
68.	Hurakadle P.J.*, Parashetti M.K., Sandeep R. Pai , <i>Tissue culture studies on Semecarpus kathalekanensis an endangered medicinal plant. (Abstracts: 59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research), Planta Medica, 77 - PB34. DOI: 10.1055/s-0031-1282288. Q1</i>	No	--	3.352
2009				
69.	Deshmukh M.H., Sandeep R. Pai , Nimbalkar M.S., Patil R.P.* <i>Biochemical characterization of banana varieties from Southern India. International Journal of Fruit Science. 9: 305-322. DOI: 10.1080/15538360903241336 Q3</i>	No	12	1.359
2008				
70.	Sandeep R. Pai* , Nimbalkar M.S., Pawar N.V., Kedage V.V., Dixit G.B. <i>In vitro embryo culture and ex situ regeneration studies in Ancistrocladus heyneanus Wall. Ex Grah. Plant Cell Biotechnology and Molecular Biology. 9(3&4): 95-100. Q4</i>	Yes	04	--
2007				
71.	Sandeep R. Pai* , Kamble M.Y., Pawar N.V., Yadav S.R., Dixit G.B., Chavan P.D., Yadav U.S. <i>Karyomorphological Analysis of Delphinium malabaricum (Huth) Munz: A Rare Endemic Potential Ornamental Plant from Peninsular India. Cytologia.72 (3): 319-322. DOI: http://doi.org/10.1508/cytologia.72.319 Q3</i>	Yes	07	0.791
2005				
72.	Kulkarni J.*, Mehta P., Sandeep R. Pai . <i>Ecotourism Potential of selected Model - 01 sites in Eastern plains of Karnataka and Recommendations for their development. My Forest. 41(2A): 319-330.</i>	No	--	--

* Corresponding Author; ‡Clarivate analytics Impact Factor, 2021

TECHNICAL REPORTS PUBLISHED: # Five

- Sandeep R. Pai** Use of biotechnological approaches for enhanced production of triterpenoids from *Achyranthes aspera* Linn. **A Young scientist Project Report submitted to SERB-DST, New Delhi. 2016**
- Sandeep R. Pai** and Kholkute S. D. *Phytochemical screening and in vitro studies in Ancistrocladus heyneanus Wall.Ex Grah. and Achyranthes aspera Linn. An ICMR-PDF Project Report submitted to ICMR, New Delhi. 2013.*
- Hegde H. V., **Sandeep R. Pai** and Vinayak U. *Preparation of preliminary inventory and management plan for Medicinal Plant Conservation Areas (MPCAs) at Kanakumbi and Kakati in Belgaum'. A Project report submitted to Karnataka Forest Department, Belgaum Division. 2010.*

4. **Sandeep R. Pai**, Kamble M. Y., Yadav S. R., Dixit G. B., Chavan P. D. and Yadav U. S. 'Domestication of Potential Ornamental Plants from the wild Bioresources of the Western Ghats'. **A Project Report submitted to Department of Biotechnology, New Delhi. 2007.**
5. Jayant Kulkarni, Prachi Mehta and **Sandeep R. Pai**. 'Ecotourism Potential of selected Model – 01 sites in Eastern plains of Karnataka and Recommendations for their development'. **A Project Report submitted to Karnataka Forest Department, Belgaum Division. 2003.**

BOOKS CONTRIBUTED: # One

1. **Sandeep R. Pai*** and Dixit GB. 'Betulinic acid from *Ancistrocladus heyneanus* Wall. Ex. Grah.' LAP Lambert Academic Publishing GmbH & Co. KG, Germany. 2012. **ISBN: 978-3-8484-1297-6.**

COMPENDIUM OF POSTERS: #One

2. Chougale A, Pawar NV, **Sandeep R. Pai**, Nimbalkar MS. (Eds) Compendium of Posters presented at #Nanobio20 International Twitter Conference, Self-published e-book, India. 2020. **ISBN: 978-93-5406-859-1**

BOOK CHAPTERS CONTRIBUTED: # Seven

1. **Sandeep R. Pai***, In Vitro Production of Terpenoids in book on Nutraceuticals Production from Plant Cell Factory Ed. By Tarun Belwal and Jameel M. Al-Khayri Published by Springer. ISBN 978-981-16-8857-7 (DOI : 10.1007/978-981-16-8858-4)
2. Wagh NS*, **Sandeep R. Pai**, Sonkamble VV*, Phytochemicals in the Prevention and Cure of Cancers, Chapter in book on Plant-derived Bioactives, Chemistry and mode of action. Ed. By Swamy M.K. Published by Springer. **ISBN 978-981-15-2361-8** (DOI: <https://doi.org/10.1007/978-981-15-2361-8>) 2020
3. **Sandeep R. Pai**, Sonkamble VV*, Wagh NS* Essential Oils as Effective agents against neurological disorders' Chapter in book on Plant-derived Bioactives, Production, Properties and Therapeutic Applications. Ed. By Swamy M.K. Published by Springer. **ISBN: 978-981-15-1760-0** (DOI: <https://doi.org/10.1007/978-981-15-1761-7>). 2020
4. Sonkamble VV*, Wagh NS* and **Sandeep R. Pai** 'Role of plant secondary metabolites as antidiabetic agents' Chapter in book on Plant Metabolites as new leads to drug discovery. Ed. By Swamy M.K. Published by Springer. **ISBN: 978-981-13-7153-0** (DOI 10.1007/978-981-13-7154-7). 2019, Citation: 01
5. Sailo L, Upadhyaya V, Naik PM, Desai N, **Sandeep R. Pai*** and Al-Khayri JM*. 'Effect of chemical elicitors on pentacyclic triterpenoids production in in vitro cultures of *Achyranthes aspera* L.' Chapter in A book on Biotechnological approaches for genetic improvement of medicinal and aromatic plants. Ed. by Nitish Kumar. Published by Springer. **ISBN: 978-981-13-0534-4** (DOI 10.1007/978-981-13-0535-1), 2018
6. **Sandeep R. Pai*** and Neetin Desai 'Effect of TDZ on various plant cultures' Chapter in A book on Thidiazuron: From Urea Derivative to Plant Growth Regulator Ed. by Ahmad N. and Faisal M. Published by Springer **ISBN: 978-981-10-8003-6** (DOI 10.1007/978-981-10-8004-3), 2018, Citation: 02
7. Kamble MY, **Sandeep R. Pai**, Shendage SM, Dixit GB, Chavan PD, Yadav US and Yadav SR. 'The Genus *Barleria* L. (*Acanthaceae*) In India: It's Diversity, Distribution and Ornamental Potential' Chapter in A book on Underutilized and Unexploited Horticultural crops. Vol II, Ed. by K. V. Peter, Kerala Agricultural University, Thrissur, Kerala. New India Publishing agency, New Delhi. 2007. **ISBN: 978-8-1894-2260-8.** Citation: 04

ARTICLES IN NEWS PAPERS: # Three

1. Upadhyaya V. and **Sandeep R. Pai**, *Tinospora cordifolia* medicinal potential, Krushi Munade Magazine, 2020
2. Upadhyaya V. and **Sandeep R. Pai**, *Achyranthes coynei* medicinal potential, Hasiru Magazine, 2018
3. *Delphinium malabaricum* potential ornamental plant, daily newspaper Agrowon, 3rd Dec. 2007
4. News on Domestication of wild flowers, in daily newspaper The Times of India, 28th Nov. 2007

GERMPLASM REGISTRATIONS: # One

1. Yadav S. R., Dixit G. B., Chavan P. D., Yadav U. S., Kamble M. Y. and **Sandeep R. Pai** Germplasm of *Delphinium malabaricum* (Huth) Munz, a wild potential ornamental plant domesticated in Department of Botany, Shivaji University, Kolhapur, has been **registered** at NBPGR, Indian Council of Agricultural Research (ICAR), New Delhi. Number: INGR 08046 on 16th Feb., 2008.

GERMPLASM DEPOSITION: # One

1. **Sandeep R. Pai**, Vinayak U. and Hegde H.V. Collected and identified *Achyranthes coynei* Sant. (*Amaranthaceae*) an endemic species, new report to Flora of Karnataka. Herbarium deposited at BSI, Kolkata. 2011. [RET Status: RARE]

GENE SEQUENCES SUBMITTED: # One

1. Hegde S., **Sandeep R. Pai**, Bhagwat R.M., Saini A., Rathore P.K., Jalalpure S.S., Hegde H.V., Sugunan A.P., Gupta V.S., Kholkute S.D. and Roy S. *Saraca asoca* bio-material RMRC:997 maturase K (matK) gene, partial cds; chloroplast, GenBank: KU994830.1 <https://www.ncbi.nlm.nih.gov/nuccore/KU994830.1>

DELIVERED TALKS: # Twenty two**PAPERS / POSTERS PRESENTED IN CONFERENCES/SEMINARS: Total #: Thirty-Three****National** : #22 Presented: # 10; Co-author: # 09; Attended: # 03**International** : #11 Presented: # 05; Co-author: # 06; Attended: # 00**WORKSHOPS: #Twenty****Participated** : #08 **Organized** : #12**REFRESHER / ORIENTATION COURSES: #03**

1. Science Academies' **refresher course on advances in molecular biology**, at Department of Microbiology and Cell Biology organized by **Indian Institute of Science, Bengaluru** from 8th to 22nd December, 2017. Sponsored by **Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad**
2. Sandeep R. Pai, successfully completed Two Weeks Faculty Development Programme on "Managing Online Classes and Co-Creating MOOCS" organized by **Teaching learning Centre, Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching**, from April 20 - May 06, 2020.
3. Sandeep R. Pai, successfully completed a 4-Week **Induction/Orientation Programme** for "Faculty in Universities/Colleges/Institutes of Higher Education" organized by **Teaching learning Centre, Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching**, from June 04 - July 01, 2020

MEMBERSHIP: #Six

1. **Editorial board member** of **Pharmacognosy Magazine** Journal [ISSN: Print -0973-1296, Online - 0976-4062] [<https://www.phcog.com>], A quarterly publication of Phcog.Net published by Wolters Kluwer - Medknow Publications. **Indexed in:** PubMed Central, Scimago Journal Ranking, SCOPUS and ESCI. It provides peer-reviewed articles in Natural Products. (<https://www.phcog.com/editorialboard.asp>) 2021
2. **Member** (Ordinary Full Member) of **Good Practice in Traditional Chinese Medicine Research Association, China**, 2021 (<http://www.gp-tcm.org/wp-content/uploads/2021/02/February-2021-GP-TCM-RA-NL.pdf>)
3. **Life Member** of the **Indian Science Congress Association**, 14 Biresh Guha Street Kolkata 700017, Membership No. L36911. 2018.
4. **Member** of **International Natural Product Sciences Taskforce (INPST)**, Poland. Date: 07/02/2018 (<https://sites.google.com/view/inpst/home?authuser=0>)
5. **Founder member** and **secretary** of a NGO, **Sahyadri Group Enriching Nature Environment and Science (Sahyadri-GENES)** based at Kolhapur, engaged in work for conservation of nature. REGD. No: MAHA/23616/KOP, Established on 04/04/2007. (<http://www.sahyadrigenes.org/index.htm>)
6. **Editorial board member** of **Pharmacognosy Research** Journal [ISSN: Print -0976-4836, Online - 0974-8490] [<http://www.phcogres.com>], A quarterly publication of Phcog.Net published by Wolters Kluwer - Medknow Publications. **Indexed in:** PubMed Central, Scimago Journal Ranking, SCOPUS and ESCI. It provides peer-reviewed articles in Natural Products. (<http://www.phcogres.com/editorialboard.asp>) Date: 10/02/2018.

OTHER EXPERIENCES AND PROFESSIONAL MEMBERSHIPS:**External:**

Paper setter	Savitribai Phule University, Pune (2020)
External Examiner	MGM College, Kamhote (2017) Dr. D. Y. Patil University, CBD Belapur (2017)
Selection committee member, Project JRF	The New College, Kolhapur (2017)
Resource person for Scientific Exhibition	Kendriya Vidyalaya, ONGC Panvel (2017)
Moderator for Ph.D. Course work Papers	Dr. D. Y. Patil University, CBD Belapur (2018)

Internal:

Coordinator IQAC	Dada Patil Mahavidyalaya, Karjat (2021)
------------------	---

Head, Department of Botany	Dada Patil Mahavidyalya, Karjat (2021)
Nodal Officer, B.Voc. Medicinal Plant Grower	Dada Patil Mahavidyalya, Karjat (2020)
Chairman, IT committee	Dada Patil Mahavidyalya, Karjat (2020)
Coordinator, Research Publication Report	Amity University, Mumbai (2019)
Member Secretary, Department IQAC	AIB, AUM (2017/18)
Member Secretary, SRC	AIB, AUM (2017/18/19)
Member, AUM Examination Disciplinary Committee	Amity University, Mumbai (2018/19)
Member, Institute BOS	AIB, AUM (2017/18/19)
Member, Purchase	AIB, AUM (2016/17)
Member, Exam Committee	AIB, AUM (2018)
Event Coordinator	AIB, AUM (2016/17/18/19)
Member, Innovation Incubation Cell	Amity University, Mumbai (2017/18)
Coordinator, Registration AMINOVA	Amity University, Mumbai (2017/18)
Coordinator, Directorate of Innovation and Technology Transfer (DITT)	Amity University, Mumbai (2018)

OTHER ACHIEVEMENTS:**A. Establishment of laboratories:**

- Well-equipped laboratory cum class room for UGC-B.Voc (Medicinal Plants Grower) course started at Rayat Shikshan Sanstha's Dada Patil Mahavidyalaya, Karjat, Maharashtra, India (Year of establishment: 2019)
- A research laboratory with high end analytical instrumentation facility was established at Amity University, Mumbai. (Date of establishment: 03.08.2016).
- Well-equipped Plant Biotechnology and Tissue Culture Division (PBTC) was established from scratch with limited resources. (Date of establishment: 13.03.2011) at National Institute of Traditional Medicine (NITM, Previously RMRC), ICMR, Belagavi
- Contributions towards establishing research laboratory at Amity Institute of Biotechnology (AIB), Amity University, Mumbai (Year of establishment: 2017)
- Projects under PBTC Division, NITM, ICMR, Belagavi (since 2011): Completed 04 (~ Rs. 1 Cr)
- Human Resource Development at: PBTC Division, NITM, ICMR, Belagavi; AIB, Amity University, Mumbai and Dada Patil Mahavidyalaya, Karjat: trained, guided and supported students in the field of biotechnology/ Botany

B. Collaboration with institutes and universities.

- National Institute of Traditional Medicine (Previously RMRC), ICMR, Belagavi with
 - ✓ Forest Department, Belagavi
 - ✓ Department of Botany, Shivaji University, Kolhapur
 - ✓ Department of Pharmaceutical Biotechnology, KLE Pharmacy college, Belagavi
 - ✓ Indian Institute of Sciences, Powai, Mumbai
- Amity Institute of Biotechnology, Amity University, Mumbai with
 - ✓ National Institute of Traditional Medicine (Previously RMRC), ICMR, Belagavi
 - ✓ Department of Botany, Shivaji University, Kolhapur
 - ✓ Arkos Industries, Pvt. Ltd. Khopoli
 - ✓ Gumpro Drilling Fluids, Pvt. Ltd. Ghatkhopar, Mumbai
 - ✓ Biomax, Pvt. Ltd. Thane.

C. Other assignments:

- Organizing workshop, seminars, faculty development program and brainstorming sessions
- Administration and office support
- Organizer of #Biotweet18 Online Twitter Poster Conference, first of its kind in India at Amity University, Mumbai.
- Advisor board member, International Twitter Conference @nanobio19, The New College, Kolhapur

I hereby declare that the information provided in the CV is true.

Place: Karjat, Ahmednagar

Date: 14.04.2022



Dr. Sandeep R. Pai

SAVITRIBAI PHULE PUNE UNIVERSITY

(Formerly University of Pune)

Department of Microbiology
Savitribai Phule Pune University
Pune 411007
INDIA



Phone : +91-20-25690643
Fax : +91-20-25690087
E-mail : hodmicro@unipune.ac.in

Ref. : Micro /

Date : 13/9/22

Endorsement from the Head of the Institution of PI

This is to certify that:

1. Institute welcomes participation of Name: Dr. Umesh U. Jadhav Designation: Assistant Professor as the Principal Investigator and Dr. Sandeep Pai as the Co- Investigator for the project titled **The Co-Immobilization Of Saccharification Enzymes Using A Novel Nanohybrid Based Nanobiocatalytic System For The Sustainable Bioethanol Production** and that in the unforeseen event of discontinuance by the Principal Investigator, the Co-Investigator will assume the responsibility of the fruitful completion of the project with the approval of SERB.
2. The PI, Dr. Umesh U. Jadhav is a regular employee of this University and has 4 years of regular service left before superannuation (Likely to be extended, since, it is a tenure track position and in the year 2021 received five years extension).
3. The project starts from the date on which the University receives the grant from SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi.
4. The investigator will be governed by the rules and regulations of University and will be under administrative control of the University for the duration of the project.
5. The grant-in-aid by the SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi will be used to meet the expenditure on the project and for the period for which the project has been sanctioned as mentioned in the sanction order.
6. No administrative or other liability will be attached to SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi at the end of the project.
7. The University will provide basic infrastructure and other required facilities to the investigator for undertaking the research project.
8. The University will take into its books all assets created in the above project and its disposal would be at the discretion of SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi.
9. The University assumes to undertake the financial and other management responsibilities of the project.

Seal of

University

Date: 13/9/22



Registrar

Savitribai Phule Pune University
Signature

Registrar of University

13/9/22

DADA PATIL MAHAVIDYALAYA**(Arts, Commerce and Science)**

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02489) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)

Jr. College HSC Board - 12.003.001 Code No. SPPU / AN / ASC / 06 / 1964



In-charge Principal
DR. SANJAY NAGARKAR
 M.A., M.Phil., Ph.D., SET

* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mauli Puraskar (2005-2006)

Ref. NO. 436/2022-23

Endorsement from the Head of the Institution of Co-PI

This is to certify that:

1. Institute welcomes participation of Name: Dr. Umesh U. Jadhav Designation: Assistant Professor as the Principal Investigator and Dr. Sandeep Pai as the Co- Investigator for the project titled **The Co-Immobilization Of Saccharification Enzymes Using A Novel Nanohybrid Based Nanobiocatalytic System For The Sustainable Bioethanol Production** and that in the unforeseen event of discontinuance by the Principal Investigator, the Co-Investigator will assume the responsibility of the fruitful completion of the project with the approval of SERB.
2. The Co-PI, Dr. Sandeep Pai is a permanent or regular employee of this Organization and has 15 years of regular service left before superannuation
3. The Co-PI will be governed by the rules and regulations of University/College and will be under administrative control of the University/College for the duration of the project.
4. The grant-in-aid by the SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi will be used to meet the expenditure on the project and for the period for which the project has been sanctioned as mentioned in the sanction order.
5. No administrative or other liability will be attached to SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi at the end of the project.
6. The University/College will provide basic infrastructure and other required facilities to the investigator for undertaking the research project.
7. The University/College will take into its books all assets created in the above project and its disposal would be at the discretion of SCIENCE & ENGINEERING RESEARCH BOARD (SERB), New Delhi.
8. The University/College assumes to undertake the financial and other management responsibilities of the project.

Seal of
College

(Signature)
 Signature
 Principal of College

Date: 13.09.2022

SAVITRIBAI PHULE PUNE UNIVERSITY

(Formerly University of Pune)

Department of Microbiology
Savitribai Phule Pune University
Pune 411007
INDIA



Phone : +91-20-25690643
Fax : +91-20-25690087
E-mail : hodmicro@unipune.ac.in

Ref. : Micro /

Date : 7/9/2022

Certificate from the Investigator

Project Title:

The Co-Immobilization Of Saccharification Enzymes Using A Novel Nanohybrid Based Nanobiocatalytic System For The Sustainable Bioethanol Production

It is certified that

1. The same project proposal has not been submitted elsewhere for financial support.
2. I undertake that spare time on equipment procured in the project will be made available to other users.
3. I agree to submit a certificate from Institutional Biosafety Committee, if the project involves the utilization of genetically engineered organisms. I also declare that while conducting experiments, the Biosafety Guidelines of Department of Biotechnology, Department of Health Research, GOI would be followed in to.
4. I agree to submit ethical clearance certificate from the concerned ethical committee, if the project involves field trails/experiments/exchange of specimens, human & animal materials etc.
5. The research work proposed in the scheme/project does not in any way duplicate the work already done or being carried out elsewhere on the subject.
6. I agree to abide by the terms and conditions of SERB grant.

Dr. Umesh Uttamrao Jadhav
Name and signature of Principal Investigator:

Date: 7/9/2022

Place: Pune

Assistant Professor
Department of Microbiology
Savitribai Phule Pune University
Formerly University of Pune
Pune - 411 007.

SAVITRIBAI PHULE PUNE UNIVERSITY

(Formerly University of Pune)

Department of Microbiology
Savitribai Phule Pune University
Pune 411007
INDIA



Phone : +91-20-25690643
Fax : +91-20-25690087
E-mail : hodmicro@unipune.ac.in

Ref. : Micro /

Date :

Undertaking by the Principal Investigator

To
The Secretary
SERB, New Delhi

Sir

I Dr. Umesh U. Jadhav hereby certify that the research proposal titled 'The Co-Immobilization Of Saccharification Enzymes Using A Novel Nanohybrid Based Nanobiocatalytic System For The Sustainable Bioethanol Production' submitted for possible funding by SERB, New Delhi is my original idea and has not been copied/taken verbatim from anyone or from any other sources. I further certify that this proposal has been checked for plagiarism through a plagiarism detection tool i.e. Urkund approved by the Institute and the contents are original and not copied/taken from any one or many other sources. I am aware of the UGC's Regulations on prevention of Plagiarism i.e. University Grant Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulation, 2018. I also declare that there are no plagiarism charges established or pending against me in the last five years. If the funding agency notices any plagiarism or any other discrepancies in the above proposal of mine. I would abide by whatsoever action taken against me by SERB, as deemed necessary.

Signature of PI with date:

Umesh U. Jadhav
13/9/22

Name/designation: Dr. Umesh U. Jadhav, Assistant Professor

Completion Certificates of
1. Mr. Mhaske Swapnil D.

Founder : Padmabhushan Dr. Karmaveer Bhavrao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.003.001 Code No. SPPU / AN / ASC / 06 / 1964

To, Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

© Savitribai Phule Pune University Best College Award (2004-2005) © Rayat Mauli Puraskar (2005-2006)

Ref: By Hand

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*श्रीगोंदा तालुक्यातील कापूस उत्पादकांचा अभ्यास*" Submitted by Asst. Prof. **Mr. Mhaske Swapnil D.** to Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Commerce**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted to any other university or institute for research work.

Date : 30/05/2022


Dr. Mahesh S. Bhadane
Coordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

2. Mr. Suryawanshi Sharad K.

Founder : Padmabhushan Dr. Karmaveer Bheerao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02469) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.003.001 Code No. SPPU / AN / ASC / 08 / 1964

I/c. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

☉ Savitribai Phule Pune University Best College Award (2004-2005) ☉ Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "कर्जत तालुक्यातील दूधसंकलन केंद्राचा विकिसक अभ्यास" Submitted by Asst. Prof. **Mr. Suryawanshi Sharad K.** to Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Commerce**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted to any other university or institute for research work.

Date: 30/03/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402.




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

3. Mr. Mandlik Akshay S.

Founder : Padmabhushan Dr. Karmveer Bhaurao Patil Rajal Shikshan Sanstha's Estd. - 1964



DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎(02485) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)

Jt. College HSC Board - 12,003,901 Code No. SPPU / AN / ASC / 06 / 1964

I/c. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

☛ Savitribai Phule Pune University Best College Award (2004-2005) ☐ Royal Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "कर्जत तालुक्यातील विविध महिला बचत गटांचा अभ्यास" Submitted by Asst. Prof. **Mr. Mandlik Akshay S.** to Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Commerce**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted to any other university or institute for research work.

Date: *30/03/2022* .


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402 .




Dr. Sanjay E. Nagarkar
I/C. Principal
IC PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

4. Dr. Bhondave Angad H.

Founder: Padmabhaiah Dr. Karmaveer Bhairao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02483) (O) 222534 (R) 222518. Email: dpcollege@yahoo.co.in Website: www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.003.001 Code No. SPPU/AN/ASC/06/1964

I/C Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

© Savitribai Phule Pune University Best College Award (2004-2005) © Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Impact of COVID-19 on International Trade of India 2019 to 2021*" was Submitted by Asst. Prof. **Dr. Bhondave Angad H.** to Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Economics**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted to any other university or institute for research work.

Date: 30/03/2022.


Dr. Mahesh S. Bhudane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist.Ahmednagar-414402




Dr. Sanjay F. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist.Ahmednagar

5. Mr. Kale Ramkrushna D.

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12,003,001 Code No. SPPU / AN / ASC / 06 / 1964

U.C. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

REF: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Impact of Historical Past on the characters in Julian Barne's novel 'The sense of an Ending'*" was Submitted by Asst. Prof. **Mr. Kale Ramkrushna D.** to Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Economics**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30/03/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

6. Mr. Gangarde Mahendrakumar V

Founder : Padmabhushan Dr. Karmaveer Bhaccho Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02489) (C) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (COPA 3.07)
Jr. College HSC Board - 12.903.001 Code No. SPPU / AN / ASC / 08 / 1964

I/c. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

© Savitribai Phule Pune University Best College Award (2004-2005) © Rayat Mauli Puraskar (2005-2006)

Ref: By Hand

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Visual Representation from Different Perspective in the Selected Novels of Jai Nimbkar and Jyoti Arora*" was Submitted by Asst. Prof. **Mr. Gangarde Mahendrakumar V**, to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of English**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted to any other university or institute for research work.

Date: 30/03/2022.


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

7. Ms. Salave Rohini R.

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02488) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSC Board - 12.003.001 Code No. SPPU / AN / ASC / 05 / 1964

U.C. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

→ Savitribai Phule Pune University Beal College Award (2004-2005) → Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled " इक्कीसवीं सदी की कथगत एवं शिल्पगत विशेषताएं" was Submitted by Asst. Prof. Miss, Salave Rohini R. to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Hindi. She has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022.


Dr. Mahesh S. Bhudane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist.Ahmednagar-414402




Dr. Sanjay P. Nagarkar
U.C. Principal
U/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

8. Mr. Rajguru Gautam D.

Founder : Padmasubhashan Dr. Karmaveer Bhaurao Patil Rajat Shikshan Sanstha's Estd. - 1964

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02488) (O) 222534 (F) 222518 . Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - '12.003.061 Code No. SPPU/AN/ASC/06/1964

I/c Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

☐ Savitribai Phule Pune University Best College Award (2004-2005) ☐ Rajat Mauli Puraskar (2005-2006)

Ref: By March

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "खर्डा किल्ल्याचा इतिहास" was Submitted by Asst. Prof. **Mr. Rajguru Gautam D.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of History**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC 5, Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

9. Dr. Kale Bharati M.

Founder : Padmabhusan Dr. Karmaveer Bhausa Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02486) (0) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jt. College HSC Board - 12,003,001 Code No. SPPU/AN/ASC/06/1984

I/c Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

• Savitribai Phule Pune University Best College Award (2004-2005) • Royal Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "मा डॉ एन डी पाटील यांचे शैक्षणिक व राजकीय क्षेत्रातील योगदान" was Submitted by Asst. Prof. **Dr. Kale Bharati M.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Marathi**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 20/03/2022.


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402.




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

10.Mr. Toradmal Agastirishi B

Founder : Padmabhushan Dr. Karmaveer Bhairao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02485) (O) 222534 (R) 222518, Email - dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - 12.003.001 Code No. SPPU/JAN/ASC/06/1964

Uc Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET e Savitribai Phule Pune University Best College Award (2004-2005) e Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Assessment of Ground Water Level Fluctuation in Karjat Tehsil in Ahmednagar District of Maharashtra State using GIS techniques*" was Submitted by Asst. Prof. **Mr. Toradmal Agastirishi B.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Geography.** He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/05/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist.Ahmednagar-414402




Dr. Sanjay P. Nagarkar
U.C. Principal
U/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist.Ahmednagar

11.Mr. Waghmare Sagar G.

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02480) (Q) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (2nd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - 12,003,001 Code No. SPPU (AN/ASC/06/1994)

I/c Principal
DR. SANJAY NAGARKAR
M.A., M.Phil, Ph.D., SET ☉ Savitribai Phule Pune University Best College Award (2004-2005) ☉ Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*New Ring and Vector Space structure of compatible system of First Order Partial Deferential Vector*" was Submitted by Asst. Prof. **Mr. Waghmare Sagar G.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Mathematics**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022.


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402.




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

12.Mr. Nalavade Amit A.

Founder : Padmabhushan Dr. Karmaveer Shauroo Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02483) (D) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.003.001 Code No. SPPU / AN / ASC / 06 / 1964

I/C Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET ♣ Savitribai Phule Pune University Best College Award (2004-2006) ♣ Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Fuzzy Game Theory Problem using Numbers and Fuzzy Random Numbers" was Submitted by Asst. Prof. **Mr. Nalavade Amit A.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Mathematics**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: *30/03/2022*


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

13.Mr. Pansare Tushar D.

Founder : Padmabhushan Dr. Kamavner Bhausa Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02489) (C) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
J. College HSC Board - 12,003,001 Code No. SPPU/AN/ASC/06/1964

Vc. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

☞ Savitribai Phule Pune University Best College Award (2004-2005) ☞ Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Screening of Medicinally Important Wild Plant Species from Karjat*" was Submitted by Asst. Prof. **Mr. Pansare Tushar D.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Botany**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30/03/2022 .


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist.Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
VC PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist.Ahmednagar

14.Mr. Patil Naresh K.

Founder : Padasubhash Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964



DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02489) (C) 222534 (R) 222518, Email : dpcollge@yahoo.co.in Website : www.dpcollge.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSC Board - 12.003.001 Code No. BPPU / AN / ASC / 06 / 1964

In Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

✦ Savitribai Phule Pune University Best College Award (2004-2005) ✦ Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Allelopathic Effect of Boerhavia Erecta on Germination of Parthenium Hysterophorus*" was Submitted by Asst. Prof. **Mr. Patil Naresh K.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Botany**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022.


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist.Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat Dist. Ahmednagar

15. Dr. D. S. Wadavkar

Founder : Padmaabhushan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02485) (O) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - 12,933,991 Code No. SPPU/AN/ASC/06/1964

I/c. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

☉ Savitribai Phule Pune University Best College Award (2004-2005) ☉ Rayat Mauli Puraskar (2005-2008)

REF: By Hand-

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Phytochemical Screening and Biochemical Analysis of Lecuas Urtification (VAHL) SM. Medicinal Plant*" was Submitted by Asst. Prof. **Dr. Wadavkar D. S.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Botany**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/05/2022 -


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402.




Dr. Sanjay K. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

16.Mr. Patil Shripad M.

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil **Rayat Shikshan Sanstha's** Estd. - 1984

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎(02488) (C) 222534 (R) 222516, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
A. College HSC Board - 12 003 001 Code No. SPPU / AN / ASC / 09 / 1984

I/C. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET Savitribai Phule Pune University Best College Award (2004-2005) Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Magnetically Recyclable silica-coated ferrite magnetite-molybdate (Nanocat-Fe-Si-Mo) and its Applications in the reductive amination of carbonyl compound under the benign condition*" was Submitted by Asst. Prof. **Mr. Patil Shripad M.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Chemistry**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

17.Mr. Suryawanshi Ganesh D.

Founder - Padmabhushan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (C) 222534 (R) 222518. Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12,003,001 Code No. SPPU/AN/ASC/09/1964

I/c. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

Ref: By hand

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Studies on Physio-Chemical Parameters in ground water around Ambolika Sugar Factory*" was Submitted by Asst. Prof. **Mr. Suryawanshi Ganesh D.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Chemistry**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.


Date: 30/05/2022.


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar - 414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

18.Dr. Sonawane Digvijay V.




Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil	Rayat Shikshan Sanstha's	Estd. - 1964
	DADA PATIL MAHAVIDYALAYA (Arts, Commerce and Science) Karjat, Dist. Ahmednagar - 414 402 (M.S.) ☎(02489) (C) 222534 (R) 222518 , Email : dpcollege@yahoo.co.in Website : www.dpcollege.in NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07) College HSC Board - 12.003.001 Code No. SPPU/AN/ASC/06/1964	
U.C. Principal DR. SANJAY NAGARKAR M.A., M.Phil., Ph.D., SET	☉ Savitribai Phule Pune University Best College Award (2004-2005) ☉ Rayat Mauli Puraskar (2005-2006)	

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Biosynthesis, Characterization and Application of Metal Nano Particles Using Plant Extract*" was Submitted by Asst. Prof. **Dr. Sonawane Digvijay D.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Chemistry**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022

 Dr. Mahesh S. Bhadane Coordinator, ARC Co-ordinator ARC & Research Centre Dada Patil Mahavidyalaya Karjat, Dist.Ahmednagar-414402		 Dr. Sanjay K. Nagarkar I/C. Principal I/C PRINCIPAL Dada Patil Mahavidyalaya Karjat, Dist.Ahmednagar
--	---	--

19.Mr. Pandit Vishal K.

Founder : Padmabhusan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02469) (C) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSC Board - 12.003.001 Code No. SPPU/AN/ASC/06/1964

Vc. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Study of Galvanostatically Electrodeposited Polypyrrole and their Physical Properties*" was Submitted by Asst. Prof. **Mr. Pandit Vishal K.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Physics**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

20.Mr. Pardeshi Amol R.

Founder : Padmabhushan Dr. Karmaveer Bhausaheb Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02489) (D) 222534 (R) 222518, Email : dpcollage@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jt. College HSC Board - 12.003.001 Code No. 5PPU/AN / ASC / 06 / 1964

U.C. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET ♣ Savitribai Phule Pune University Best College Award (2004-2005) ♣ Rayat Mauli Puraskar (2005-2006)

Ref: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Development and Characterization of Graphene Oxide Nanoparticles for Supercapacitor Application*" was Submitted by Asst. Prof. **Mr. Pardeshi Amol R.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Physics**. He has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/08/2022.


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar - 414402




Dr. Sanjay P. Nagarkar
U.C. Principal
U/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

21.Ms. Bedre Ashvini V.

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil **Rayat Shikshan Sanstha's** Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02489) (C) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSC Board - 12 003 001 Code No. SPPU / AN / ASC / 08 / 1964

I/c. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

Rep: By Hand.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Comparative Study of Biochemical Analysis of Protein, Carbohydrate and Lipid Contain of Inland and Exotic Fish Species from Bhima River, Maharashtra, India*" was Submitted by Asst. Prof. **Miss. Bedre Ashvini V.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Zoology**. She has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30/03/2022


Dr. Mahesh S. Bhadane
Coordinator, ARC
Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C. Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

22.Ms. Kulkarni Trupti C.

Founder : Padmabhushan Dr. Kamaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02408) (0) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSC Board - 12 003 001 Code No. SPPU/AN/ASC/06/1964

In Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

☉ Savitribai Phule Pune University Best College Award (2004-2005) ☉ Rayat Mauli Puraskar (2005-2006)

REF: By Karjat.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Effects of High Frequency Radiation from 4G Cell Phone on Some Biochemical and Morphological Aspects of Developing Chick Embryo (Gallus gallus)*" was Submitted by Asst. Prof. **Miss. Kulkarni Trupti C.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Zoology**. She has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022


Dr. Mahesh S. Bhudane
Coordinator, ARC

Co-ordinator
ARC & Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402




Dr. Sanjay P. Nagarkar
I/C, Principal
I/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

23.Ms. Shaikh Mawiyanz Imran

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02489) (O) 222534 (R) 222518, Email : dpcollage@yahoo.co.in Website : www.dpcollage.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - 12,003,001 Code No. SPPU/AN/ASC/06/1984

U.C. Principal
DR. SANJAY NAGARKAR
M.A., M.Phil., Ph.D., SET

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

Ref: By Mawad

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*A study of Seasonal Variation in Zooplankton Biodiversity in Ujani Reservoir, Bhigwan (M.S.), India.*" was Submitted by Asst. Prof. **Ms. Shaikh M. I.** to the Academic Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the **Department of Zoology**. She has successfully completed this project according to the regulations of the college and has submitted it to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2022



Dr. Mahesh S. Bhadane
Coordinator, ARC



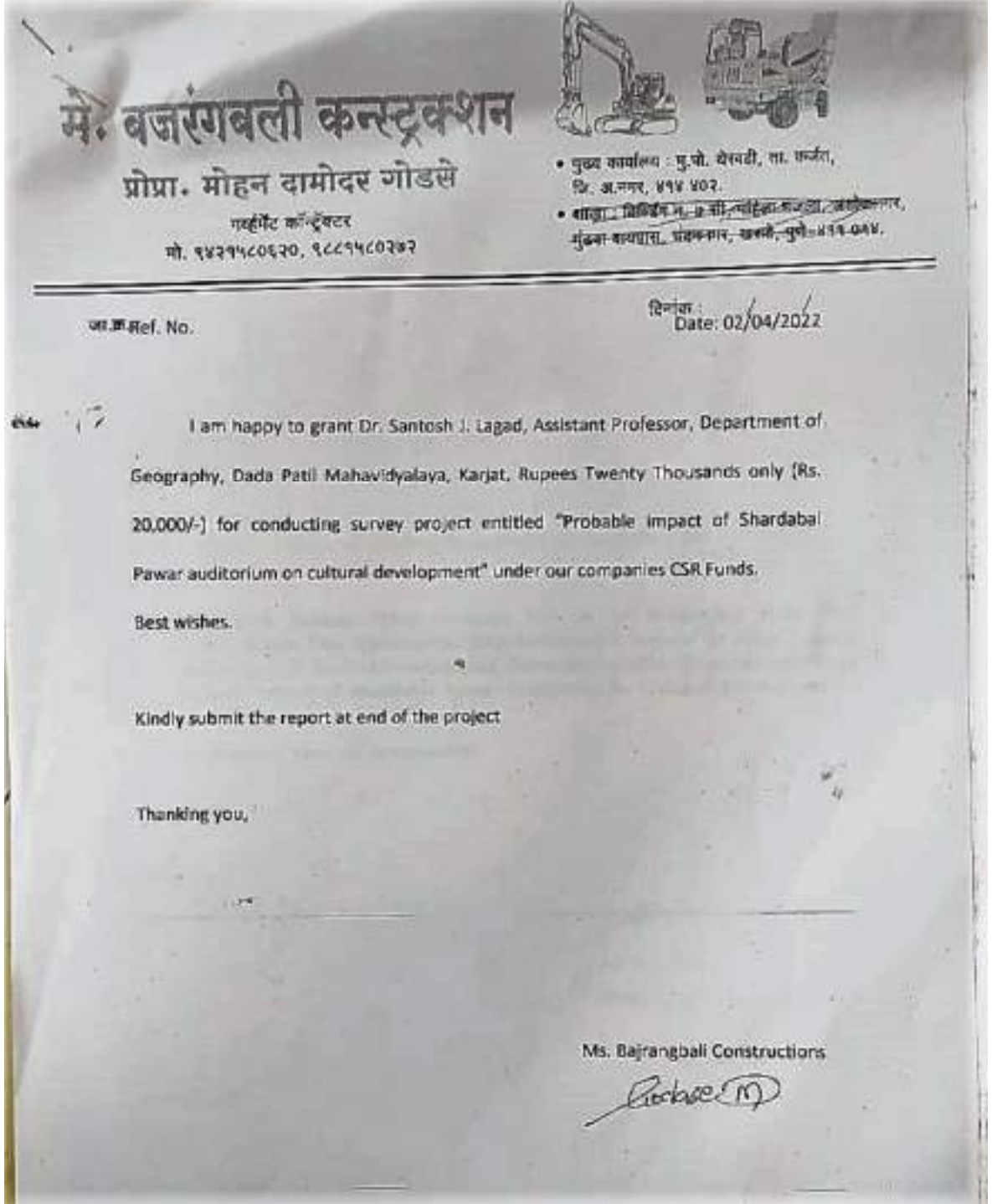
Co-ordinator
ARC Research Centre
Dada Patil Mahavidyalaya Karjat,
Dist. Ahmednagar-414402



Dr. Sanjay B. Nagarkar
U.C. Principal

U/C PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

24.Dr. Santosh J. Lagad



मे. बजरंगबली कन्स्ट्रक्शन

प्रो. मोहन दामोदर गोडसे

गव्हर्नमेंट कॉन्स्ट्रक्टर
मो. ९४२१५८०६२०, ९८८१५८०२४२



- मुख्य कार्यालय : पु.पो. येरवडी, ता. कारजत, जि. अ.नगर, ४१४ ४०२.
- शाखा : सिव्हिलीन म. प्र.सी. लॉन्गिस्टिक कारजत, जवहरेकर, मुंबना वाघघाटा, प्रकल्पनगर, खरवी, पुणे-४११-०४४.

जा.सं. Ref. No.

दिनांक :
Date: 02/04/2022

I am happy to grant Dr. Santosh J. Lagad, Assistant Professor, Department of Geography, Dada Patil Mahavidyalaya, Karjat. Rupees Twenty Thousands only (Rs. 20,000/-) for conducting survey project entitled "Probable impact of Shardabai Pawar auditorium on cultural development" under our companies CSR Funds.

Best wishes.

Kindly submit the report at end of the project

Thanking you,

Ms. Bajrangbali Constructions



H.C. Principal
Dr. Nagarkar S.P.

M.A.M. Phil.
Ph.D.

Rajawade Sanshodhan Mandal

DADA PATIL MAHAVIDYALAYA

Karjat, Dist A'nagar-414402 (M.S.)

Arts, Science & Commerce

FOR NILEL: Padmaabhusan Dr. Karmadecar Bhaurao Patil

Jr. College No.10

Phone No. 22332001

Phone No. 22332002

STD Code: 02460

OFFICE: 22332004

Fac: 22332003

email:

sp@drpdrkarmadecarbhaurao.com

स्वीकार क्रमांक: 402/08

दिनांक: 19.04.2023

श्री,
०० महाविद्यालय,
कारज, जि. अ. नगर, महाराष्ट्र

विषय: वसु विद्या यज्ञं विद्या यज्ञं

महोदय,

आमच्या महाविद्यालयातील डॉ. व्ही. नारायण रंगरजे यांच्या अध्यक्षतेखाली एका खासगी महाविद्यालय, कारज येथे आयोजित झालेल्या ५५व्या वार्षिक वार्षिक सभेमध्ये आम्ही आणि इतर महाविद्यालयांनी ५५व्या वार्षिक सभेमध्ये "Prospectus of Sharadha Power Auditorium for Cultural, Social and Economic development of Karjat Taluqa" या विषयावर एकत्रित संशोधन प्रकल्पामाठी अधिक सहाय्य मिळवणे आणि कारज वसु विद्या यज्ञं महाविद्यालयासाठी अधिक सहाय्य देणे हा उद्देश ठरवला आहे याची

आज्ञाई, ही दिलेली.



आचार्य

०० महाविद्यालय,
कारज, जि. अ. नगर

PART - B
Proposed Research Work

- ❖ Project Title:
- ❖ Introduction:
- ❖ Keywords:
- ❖ Objectives:
- ❖ Methodology:
- ❖ Work Plan:
- ❖ Expected Outcome:
- ❖ References:
- ❖ Required Financial Assistance:


Attached Part B

Sr. No.	Items	Estimated Expenditure (Rupees)
1	Travel/field work	2000
2	Publications	16000
3	Contingency (including special needs)	2000
Total		20,000/-

Figure in Words: Twenty Thousand rupees only.


Signature
(Lagad S. J.)




I/C Principal
Dada Patil Mahavidyalaya, Karjat
Dist- Ahmednagar.



Rajal Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA, KARJAT
ACCADEMIC RESEARCH COMMITTEE

This is to certified that the proposal entitled *Probable Impact of Shardabai Pawar Auditorium on Cultural Development* by Dr. Lagad Santosh Jahaji, Department of Geography, has been assessed by the Expert committee consisting the following members for submission to the Dada Patil Mahavidyalaya, Karjat for financial support under the scheme of Minor Research Project.

Details of Expert Committee:

1. Dr. M. S. Bhadane (Coordinator)
2. Pro. B. G. Yadhav
3. Dr. V. M. Nikale
4. Dr. S. R. Pai
5. Dr. S. S. Patil
6. Dr. S. J. Lagad
7. Dr. A. S. Mhaske
8. Dr. V. S. Kapse

[Handwritten signatures of committee members]



The proposal is as per the guidelines.



[Handwritten signature]
I/C Principal
Dada Patil Mahavidyalaya, Karjat
Dist- Ahmednagar

Recommendation of the Research Committee:

The above Research project is sanctioned/ not sanctioned under CSR fund M/S Bajarangbali Construction A/Po- Theravadi Tal- Karjat.

Sanctioned amount is Rs.20,000/-

[Handwritten signature]
Coordinator
Research Committee



[Handwritten signature]
I/C Principal
Dada Patil Mahavidyalaya, Karjat

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2020-21

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Sr. No.	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non-Government)
1)	कर्जत तालुक्यातील डाळिंब उत्पादकांच्या समस्यांचा अभ्यास	Mr. B. G. Yadav	Commerce	2020	10000/-	1 year	Seed Money	Non-Government
2)	कर्जत तालुक्यातील कुक्कुटपालन व्यावसायिकांच्या समस्यांचा अभ्यास	Mr. S. K. Suryawanshi	Commerce	2020	6000/-	1 year	Seed Money	Non-Government
3)	Development of Catalyst-free and Solvent-free Methodology for Synthesis of Organic Compounds	Dr. A.P. Ingale	Chemistry	2020	15000/-	1 year	Seed Money	Non-Government
4)	The Synthesis and Characterization and Biological predication study of 5-methyl-2, 1,3'-triphenyl-2H,1'H-[3,4'] bipyrazolyl derivatives	Dr. V.S.Kapase	Chemistry	2020	10000/-	1 year	Seed Money	Non-Government
5)	Delineation of Saline Lands using Soil Adjusted Vegetation Indices (SAVI) for Shrigonda Taluka District Ahmednagar	Mrs. M.R.Gulave	Geography	2020	15000/-	1 year	Seed Money	Non-Government

6)	Systematic Analysis of Swachha Survekshan Abhiyan 2020-21-A Case Study of Karjat City	Dr. S. J. Lagad	Geography	2020	15000/-	1 year	Seed Money	Non-Government
7)	A Geographical Study of Concentration of Tribal Population and Literacy in Akole Tahsil District Ahmednagar (MS)	Mr. V.S. Asawale	Geography	2020	8000/-	1 year	Seed Money	Non-Government
8)	Assessment of Wetland Avifaunal Diversity from Different Lakes in Karjat Tehsil(Ahmednagar), Maharashtra, India.	Mr. D.S.Kumbhar	Zoology	2020	15000/-	1 year	Seed Money	Non-Government
9)	Temperature as a driver affecting life cycle of Butterflies.	Dr. P.A. Pawar	Zoology	2020	15000/-	1 year	Seed Money	Non-Government
10)	Fuzzy Transportation Problem Using Fuzzy Number and Fuzzy Random Numbers	Dr. A.S.Mhaske	Mathematics	2020	13000/-	1 year	Seed Money	Non-Government
11)	Qualitative analysis of Common Mangroves	Dr. P.N. Nagane	Botany	2020	15000/-	1 year	Seed Money	Non-Government
12)	Phytochemical Screening of Seed Extract of Crotalaria Juncea with Respect To Antifertility Agents	Dr. A.B. Kadam	Botany	2020	15000/-	1 year	Seed Money	Non-Government

13	Effect of Nd ³⁺ doping of structural and Magnetic Properties of Co _x Ni _{1-x} Nd _y Fe _{2-y} O ₄ nanocrystalline ferrites synthesis by sol-gel auto combustion method	Mr B. S. Maharnavar	Physics	2020	16000/-	1 year	Seed Money	Non-Government
14	कर्जत तालुक्यातील निवडक आंबेडकरी गीतकारांच्या गीतांचा अभ्यास	Mr. A.B.Sonawane	Marathi	2020	20000/-	1 year	Seed Money	Non-Government
15	An Introduction to the Study of Connected Speech in English	Mr. K.O. Vasave	English	2020	15,000/-	1 year	Seed Money	Non-Government
16	२१ वी सदी के हिन्दी उपन्यासोमे चित्रित परिवर्तित नारी जीवन मुल्य	Dr. P.B. Pardeshi	Hindi	2020	15,000/-	1 year	Seed Money	Non-Government
17	Recent trends in Web Development- 2021	Mr. R.B.Salunke	BCA	2020	10,000/-	1 year	Seed Money	Non-Government
18	Python Programming – Applications and Future	Ms. P. D. Khade	BCA	2020	12,000/-	1 year	Seed Money	Non-Government
19	Impact of artificial intelligence on teaching and learning in higher education	Mr. G.V.Burte	BCA	2020	10,000/-	1 year	Seed Money	Non-Government
20	Cyber-crime and Cyber Security Techniques	Mr. L.P.Anarase	BCA	2020	6,000/-	1 year	Seed Money	Non-Government
21	Significance of Aging and Memory	Mr. R.D.Kale	BCA	2020	10,000/-	1 year	Seed Money	Non-Government
Total								2,66,000/-

1. Prof. B. G. Yadav

Founder : Padmaleshwar Dr. Karmavir Shaurao Patil
Rayat Shikshan Sanstha's
Estb. - 1964

**DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (02488) (D) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College YSC Board - 12.063.001 Code No. SPPU / AN / ASC / 95 / 1964


→ Savitribai Phule Pune University Best College Award (2004-2005) → Rayat Mauli Paraskar (2005-2006)


SEED MONEY PROJECT

Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled, "करजत ताम्रक्यातील झटिंब उत्पादकांच्या समस्यांचा अभ्यास" (A Study of Problems of Pomegranate Producers in Karjat Taluka)" was satisfactorily completed and submitted by Prof. Yadav Bhagwat Ganpat (Principal Investigator) Department of Commerce to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. Prof. Yadav Bhagwat Ganpat worked on this project in the Department of Commerce. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indra M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Prof. B.G. Yadav (Principal Investigator)




Principal,
Dada Patil Mahavidyalaya, Karjat

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

2. Mr. Suryawanshi S. K.

Founder - Padmashukha Dr. Kameshwar Bhawanji Patil
Rayat Shikshan Sanstha's
Estb. - 1964



DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (C) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Dr. College HSC Board - 12.002.091 Code No. SPPU / AN / ASC / 85 / 1964

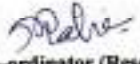
• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Masli Puraskar (2005-2006)


SEED MONEY PROJECT

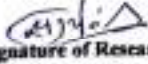
Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled , "कारज तालुक्यातील कुक्कुटपालन व्यावसायिकांच्या समस्यांचा अभ्यास" (A Study of Problems of Poultry Producers in Karjat Taluka)" was satisfactorily completed and submitted by Prof. Suryawanshi S.K. (Principal Investigator) Department of Commerce to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. Prof. Suryawanshi S.K. worked on this project in the Department of Commerce. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indra M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Prof. Suryawanshi S.K. (Principal Investigator)



End:- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

3. Dr. Ingale A. P.

Founder : Padmabhushan Dr. Kannevar Bhawanee Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
DR. BAL KANBLE
M.A., M.Phil., Ph.D.

☎ (02489) (0) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - 12,083,081 Code No. SPPU / AN / ASC / 06 / 1964

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

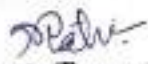
SEED MONEY PROJECT

Date: 30/03/2021

COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "**Development of Catalyst-free and Solvent-free Methodology for Synthesis of Organic Compounds**" Submitted by Asst. Prof. **Dr. A. P. Ingale** to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by his in the Department of Chemistry. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30.03.2021


Co-ordinate (Research Committee)

Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat




Principal

Dada Patil Mahavidyalaya, Karjat

Signature of Researcher
Dr. A. P. Ingale (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure

4. Dr. Kapase V.S.

 Founder: Padmashankar D. Kambarwar Shrihari Patil **Rayat Shikshan Sanstha's** Estd. - 1964
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (O) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12 903 801 Code No. SPPU (AN) ABC / 196 / 1994
* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mast Parivarik (2005-2006)

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

SEED MONEY PROJECT

Date: 30/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled, "The Synthesis and Characterization and Biological predication study of 5-methyl-2, 1, 3'-triphenyl-2H, 1'H-[3, 4'] bipyrazolyl derivatives." was satisfactorily completed and submitted by **Dr. Valmik Shamrao Kapase** (Principal Investigator) Department of Chemistry to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Dr. Valmik Shamrao Kapase** worked on this project in the Department of Chemistry. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat.




Signature of Researcher:
Dr. V.S. Kapase (Principal Investigator)

Encl:- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

ॐ संतोषो भवति यदा कर्मणोः फलं लभते ॥

5. Ms. Gulave M. R.

Founder - Padmabhushan Dr. Karmaveer Bhaasa Patil
Rayat Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.
☎ (02488) (0) 222934 (R) 222918 (F) 222923 Email - dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
A. College HBC Board - 12.083.081 Code No. SPPU / AN / ASC / 96 / 1964
* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mauli Puraskar (2005-2006)

SEED MONEY PROJECT

Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled **"Delineation of Saline Lands using Soil Adjusted Vegetation Indices (SAVI) for Shrigonda Taluka District Ahmednagar"** Submitted by Asst. Prof. **Mrs. M. R. Gulave** to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by her in the Department of Geography. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 26.03.2021



I. M. Patil
Co-ordinate (Research Committee)
Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat

M. R. Gulave
Principal
Dada Patil Mahavidyalaya, Karjat

Signature of Researcher
Mrs. M. R. Gulave (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure

6. Dr. Lagad S. J.

Founder : Padmabhanu Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02489) (0) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.083.061 Code No. SPPU / AN / ASC / 06 / 1964

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Masil Paraskar (2005-2006)

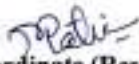
SEED MONEY PROJECT

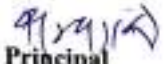
Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Systematic Analysis of Swachha Survekshan Abhiyan 2020-21-A Case Study of Karjat City" Submitted by Asst. Prof. **Dr. Santosh Jabaji Lagad** to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Geography. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 26.03.2021


Co-ordinate (Research Committee)
Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal
Dada Patil Mahavidyalaya, Karjat




Signature of Researcher
Dr. Santosh Jabaji Lagad (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure

7. Mr. Aswale V. S.

Founder : Padmashankar Dr. Kameswar Bhaskar Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (02488) (0) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12883.001 Code No. SPPU / AN / ASC / 05 / 1964

◊ Savitribai Phule Pune University Best College Award (2004-2005) ◊ Rayat Masli Puraskar (2005-2006)

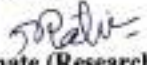
SEED MONEY PROJECT


Date: 26/03/2021

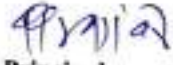
COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "A Geographical Study of Concentration of Tribal Population and Literacy in Akole Tahsil District Ahmednagar (MS)" Submitted by Asst. Prof. Mr. V. S. Asawale to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Geography. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 26.03.2021


Co-ordinate (Research Committee)
Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat




Principal
Dada Patil Mahavidyalaya, Karjat

Signature of Researcher
Mr. V. S. Asawale (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure

8. Mr. Kumbhar D. S.

Founder : Padmabhusan Dr. Karmveer Bhaurao Patil Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
R. BAL KAMBLE
M.A., M.Phil., Ph.D.

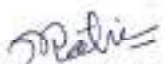
☎ (02489) (O) 222534 (R) 222518 (F) 223923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12,083,661 Code No. SPPU / AN / ASC / 06 / 1964
• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)


SEED MONEY PROJECT


Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled , "Assessment of Wetland Avifaunal Diversity from Different Lakes in Karjat Tehsil (Ahmednagar District), Maharashtra, India." was satisfactorily completed and submitted by Prof. Digvijay S. Kumbhar (Principal Investigator) Department of Zoology to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. Prof. Digvijay S. Kumbhar worked on this project in the Department of Zoology. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Prof. D.S.Kumbhar (Principal Investigator)




Principal,
Dada Patil Mahavidyalaya, Karjat

Encl- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

'सत्यमेव जयते'

9. Dr. Pawar P. A.

Founder : PadmaShri Dr. Karsaveer Bhaurao Patil
Rajal Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science) Estd. - 1964

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02408) (O) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSE Board - 13 803 801 Code No. SPPU/AM/ASC/96/1964
= Savitribai Phule Pune University Best College Award (2004-2005) = Rajal Mauli Puraskar (2005-2006)

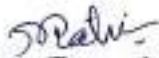
SEED MONEY PROJECT

Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "**Temperature as a driver affecting life cycle of Butterflies**" Submitted by Asst. Prof. **Dr. Pratima A. Pawar** to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by her in the Department of Zoology. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 26.03.2021


Co-ordinate (Research Committee)
Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat




Principal
Dada Patil Mahavidyalaya, Karjat

Signature of Researcher
Dr. Pratima A. Pawar (Principal Investigator)



Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure

10. Dr. Mhaske A. S.

Founder : Padmabhabhan Dr. Karmaveer Bhaurao Patil
Rajal Shikshan Sanstha's
Estd - 1964



DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (O) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College HSC Board - 12/083/001 Code No. SPPU/AM/ASC/16/1994
= Savitribai Phule Pune University Best College Award (2004-2005) = Rajal Masil Paraskar (2005-2006)

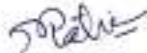
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.


SEED MONEY PROJECT

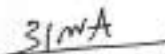
Date: 26/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled, "Fuzzy Transportation Problem Using Fuzzy Numbers and Fuzzy Random Numbers" was satisfactorily completed and submitted by **Dr. Ashok S. Mhaske** (Principal Investigator) Department of Mathematics to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Prof. Ashok S. Mhaske** worked on this project in the Department of Mathematics. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Dr. A. S. Mhaske (Principal Investigator)



Encl- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

11. Dr. Nagane P. N.

 Founder - Padmashree Dr. Karmaveer Bhau Patil Rayat Shikshan Sanstha's Estd - 1964

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (02489) (C) 222534 (R) 222518 (F) 222623 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.97)
A. College HSC Board - 12.803.081 Code No. SPPU / AN / ASC / 08 / 1964

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled “**Qualitative Analysis of Common Mangroves**” Submitted by **Dr. Pratishtha Nitin Nagane**, to research Committee of Rayat Shikshan Sanstha's, Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by her in the Department of Botany. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2021.


Dr. J. M. Patil
Research Committee




Principal
Dr. Bal Kamble

12. Dr. Kadam A. B.

 Founder: Pabrabhakar Dr. Karmakar Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
Principal: **DR. BAL KAMBLE** M.A., M.Phil., Ph.D.
☎ (02488) (D) 222534 (R) 222518 (F) 223923 Email: dpcollege@yahoo.co.in Website: www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jt. College HSC Board - 12.003.901 Code No. SPPU/AN/ASC/66/1994
« Savitribai Phule Pune University Best College Award (2004-2005) « Rayat Mauli Puraskar (2005-2006)

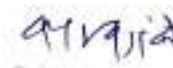
PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled “**Phytochemical Screening of Seed Extract of Crotalaria Juncea With Respect to Antifertility Agents**” Submitted by **Dr. Asha Bhausaheb Kadam**, to research Committee of Rayat Shikshan Santha's, Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by her in the Department of Botany. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/03/2021


Dr. I. M. Patil
Research Committee




Principal
Dr. Bal Kamble

13. Mr. Maharnavar B. S.

 Founder: Panchabhushan Dr. Karnanwar Sitansoo Patil Rayat Shikshan Samstha's Estd. - 1964
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.
☎ (02488) (0) 222534 (R) 222518 (F) 223603 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.093.091 Code No. SPPU / AN / ABC / 06 / 1994
* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mauli Puraskar (2005-2006)

SEED MONEY PROJECT

Date: 30/03/2021

COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "**Effect of Nd³⁺ doping of structural and Magnetic Properties of Co_xNi_{1-x}Ndy-Fe_{2-y}O₄ nanocrystalline ferrites synthesis by sol-gel auto combustion method**" Submitted by Asst. Prof. **Mr. B. S. Maharnavar** to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Physics. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30.03.2021


Co-ordinate (Research Committee)
Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher
Mr. B. S. Maharnavar (Principal Investigator)


Principal
Dada Patil Mahavidyalaya, Karjat



Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure

14. Mr. Sonawane A. B.

Estd. - 1964

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

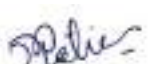
☎ (02489) (D) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12.083.001 Code No. SPPU / AM / ASC / 06 / 1984
= Savitribai Phule Pune University Best College Award (2004-2005) = Rayat Mauli Puraskar (2005-2006)

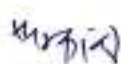
SEED MONEY PROJECT


Date: 30/03/2021


COMPLETION CERTIFICATE

This is to certify that the project entitled, "करजल तालुक्यातील आंबेडकरी गीतकारांच्या गीतांचा अभ्यास" was satisfactorily completed and submitted by Mr. Anant Bhikaji Sonawane (Principal Investigator) Department of Marathi to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. Mr. Anant Bhikaji Sonawane worked on this project in the Department of Marathi. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat




Signature of Researcher:
Mr. A. B. Sonawane (Principal Investigator)

Encl- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

15.Mr. Vasave K. O.

 Founder: Padasubhashan Dr. Karmaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1964
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02496) (O) 222524 (R) 222519 (F) 222603 Email: dpcollege@yahoo.co.in Website: www.dpcollege.in
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.67)
College HSC Based - 12, 80, 901 Code No. BPP2 / AN / ASC / 96 / 1964
* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mauli Puraskar (2005-2006)

SEED MONEY PROJECT

Date: 30/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled, "An Introduction to the study of connected speech in English" was satisfactorily completed and submitted by Prof. Kirta O. Vasave (Principal Investigator) Department of English to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. Prof. Kirta O. Vasave worked on this project in the Department of English. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat





Signature of Researcher:
Prof. Vasave K.O. (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

16. Dr. Pardeshi P. B.

संस्थापक : स्व. कृष्ण शं. कर्मवीर भाऊराव पाटील
राजत शिक्षण संस्थेचे.
स्थापना - १९६३

**दादा पाटील महाविद्यालय, कर्जत**
कला, वाणिज्य व विज्ञान

कर्जत, जि. अहमदनगर - ४१४ ४०१ (महाराष्ट्र) ✉ (०२४८६) (कार्यालय) २२२५३४ (निवास) २२२५६८ (फॅक्स) २२२९२३
Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
वेब पृष्ठांकन 'ए' ग्रेड (सीजीसीए ३.०९)
Jr. College HSC Board - 12.683.081 Code No. 89PU/AN/ASC/06/1984

प्राचार्य
डॉ. बाळ बांबळे
एच.ए., एच.फिल., पीएच.डी.

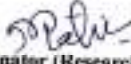
✳ काविरीबाई कुले पुणे विद्यापीठ सर्वोत्कृष्ट महाविद्यालय पुरस्कार (१९८४-१९८६) ✳ रम्य माहती पुरस्कार (१९९६-१९९८)


SEED MONEY PROJECT


Date: 26/03/2021


COMPLETION CERTIFICATE

This is to certify that the project entitled , "इलबीसही सदी के उन्च्यारो ये मूल्य परीक्षण," was satisfactorily completed and submitted by **Dr. Pardeshi P.B** (Principal Investigator) **Department of Hindi** to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Dr. Pardeshi P.B** worked on this project in the Department of Geography. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat




Signature of Researcher:
Dr. Pardeshi P.B. (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

17. Mr. Salunke R. B.

Founder : Padmabhanu Dr. Kameswar Bhavara Patil Rayat Shikshan Sanstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
DR. BAL KAMBLE
B.A., M.Phil., Ph.D.

☎ (22499) (C) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HSC Board - 12,603,801 Code No. SPPU/AN/ASC/08/1984

» Savitribai Phule Pune University Best College Award (2004-2005) » Rayat Mauli Puraskar (2005-2006)

SEED MONEY PROJECT


Date: 30/03/2021

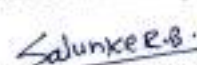
COMPLETION CERTIFICATE

This is to certify that the project entitled, "**Recent Trends In Web development**" was satisfactorily completed and submitted by **Mr. Ravindra B. Salunke** (Principal Investigator) **Department of Computer Application** to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Mr. Ravindra B. Salunke** worked on this project in the Department of Computer Application. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):

Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:

Mr. Ravindra B. Salunke (Principal Investigator)



Encl.-

- 1) Hard copy of Research Project
- 2) Utilization Certificate and statement of expenditure.

18.Ms. Khade P. D.

 Founder: Pabotkhanra J. Karveer Dhanoo Patil Rayat Shikshan Sanstha's ESTD - 1964
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02489) (O) 222534 (R) 222518 (F) 222523 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
A. College HBC Board - 12/903/061 Code No. SPPU/AN/ASC/86/1964

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

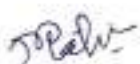
→ Savitribai Phule Pune University Best College Award (2004-2005) → Rayat Mauli Puraskar (2005-2006)

SEED MONEY PROJECT

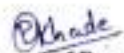
Date: 31/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled, " **PYTHON PROGRAMMING – APPLICATION AND FUTURE** " was satisfactorily completed and submitted by **Miss . Pragati D. Khade** (Principal Investigator) Department of Computer Application to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Miss . Pragati D. Khade** worked on this project in the Department of Computer Application. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Miss . Pragati D. Khade (Principal Investigator)



- Encl.-1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

19.Mr. Burte G. V.

Founders: Padmabhashan Dr. Kameswar Bhaurao Patil Rayat Shikshan Sansstha's Estd. - 1964

 **DADA PATIL MAHAVIDYALAYA**
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02406) (C) 222534 (R) 222518 (F) 223923 Email: dpcollege@yahoo.co.in Website: www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HOC Board - 12,903,961 Colls No. SPPU/AN/ABC/04/1964

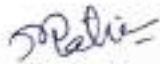
• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Paraskar (2005-2006)

SEED MONEY PROJECT


Date: 30/03/2021

COMPLETION CERTIFICATE

This is to certify that the project entitled, "IMPACT OF ARTIFICIAL INTELLIGENCE ON TEACHING AND LEARNING IN HIGHER EDUCATION" was satisfactorily completed and submitted by **Mr. Ganesh V. Burte** (Principal Investigator) Department of Computer Science to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Mr. Ganesh V. Burte** worked on this project in the Department of Computer Science. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Mr. Ganesh V. Burte (Principal Investigator)



Encl.-
1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.

20.Mr. Anarase L. P.

Founder : Padmashubhan Dr. Kannawar Shaurao Patil Rayat Shikshan Sanstha's Estd - 1964



DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal:
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (02488) (D) 222534 (R) 222518 (F) 222823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.67)
Jr. College HSC Board - 12,063,961 Code No. SPPU/AN/ABC/OE/1964

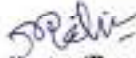
◊ Savitribai Phule Pune University Best College Award (2004-2005) ◊ Rayat Mauli Puraskar (2005-2006)

SEED MONEY PROJECT

Date: 30/03/2021


COMPLETION CERTIFICATE

This is to certify that the project entitled, "**Cyber Crime and Cyber Security Techniques**" was satisfactorily completed and submitted by **Mr. Lalasaheb P. Anarase** (Principal Investigator) **Department of Computer Science** to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the seed money project scheme. **Mr. Lalasaheb P. Anarase** worked on this project in the Department of Computer Science. In my opinion, is worthy of consideration for provision of required grant in accordance with the rules and regulations of research committee. The results embodied in this project have not been submitted to any other University or Institute for research project.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat


Principal,
Dada Patil Mahavidyalaya, Karjat




Signature of Researcher:
Mr. Lalasaheb P. Anarase (Principal Investigator)

- Encl.-**
- 1) Hard copy of Research Project
 - 2) Utilization Certificate and statement of expenditure.

21.Mr. Kale R. D.

Founder - Padmabhooshan Dr. Karmaveer Bhausaheb Patil
Rajyal Shikshan Sanstha's
Dada Patil MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (0) 222534 (R) 222519 (F) 223923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.47)
Jr. College HSC Board - 12,801 801 Code No. SPFU / AN / ASC / 36 / 1984
= Savitribai Phule Pune University Best College Award (2004-2005) = Rajyal Mauli Puraskar (2005-2006)

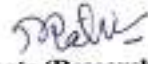
SEED MONEY PROJECT

Date: 30/03/2021


COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Significance of Aging and Memory" Submitted by Asst. Prof. Mr. Ramkrushn D. Kale to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by his in the Department of English. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30.03.2021


Co-ordinate (Research Committee)
Smt. Dr. I. M. Patil
Head & Associate Professor,
Department of Zoology
Dada Patil Mahavidyalaya, Karjat




Principal
Dada Patil Mahavidyalaya, Karjat

Signature of Researcher
Mr. Ramkrushn D. Kale (Principal Investigator)

Encl.- 1) Hard copy of Research Project
2) Utilization Certificate and Statement of expenditure



3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2019-20

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Sr. No.	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non-Government)
1)	Development of Novel Green Methodologies in Organic Chemistry and their applications in the synthesis of Bioactive compounds	Ingale AP	Chemistry	2019	125000	3 years	SPPU, Pune	Government
2)	Trade relation between India and America Year 2018-19	Rodage KD	Economics	2019	10000	1 year	Dada Patil Mahavidyalaya, Karjat	Non Government
3)	Krushna agnihotri ka kahtha sahitya: Nari Vimarshya	Khilare BS	Hindi	2019	10000	1 year	Dada Patil Mahavidyalaya, Karjat	Non Government
4)	Socio Economic Survery of the sutents of Dada Patil Mahavidyalya, Karjat 2019-20	Bhondave AH	Economics	2019	10000	1 year	Dada Patil Mahavidyalaya, Karjat	Non Government
5)	Role of chemcial bath deposition (CBD) parameters and sub	Maharnavar BS	Physics	2019	15000	1 year	Dada Patil Mahavidyalaya, Karjat	Non Government
6)	Post annealing Influence studed of SrF2 nanoparticles on its structural	Bhandane MS	Physics	2019	15000	1 year	Dada Patil Mahavidyalaya, Karjat	Non Government

	Morphological Functional and dosimetic properties							
7)	Phytochemical and antioxidant analysis of some medicinal Plants	Pai SR	Botany	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government
8)	Phytochemical study of some mangroves	Nagane PN	Botany	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government
9)	Analysis of potent phytochemicals with contraceptive activeis in advancement of female contraception	Kadam AB	Botany	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government
10)	Salinity induced changes in antioxidant activity of <i>Amaranthus hypochondriacus</i>	Gaikwad SV	Botany	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government
11)	Threats to fish diversity and conservation of ecosystem in ujani reserivior (Near Bhigwan) Tal. Indapur Dist, Pune	Patil SS	Zoology	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government
12)	Insect diversity of Rehkuri (Blackbug Sanctury) with special features to lifecycle and Niche	Pawar PA	Zoology	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government
13)	One pot green methods for synthesis of (1,3) oxazine derivatives under aqueous method	Kshirsagar	Chemistry	2019	15000	1 year	Dada Patil Mahavidyaya, Karjat	Non Government

14)	A green method for analysis of chemoselective protection of amine by using green base catalysed	Gondake SP	Chemistry	2019	15000	1 year	Dada Patil Mahavidyalya, Karjat	Non Government
15)	Soil carbon sequestration in mangrove ecosystem of Raigad district	Palve SA	Botany	2019	15000	1 year	Dada Patil Mahavidyalya, Karjat	Non Government
16)	Need and Importance of communication skills	Kale RD	English	2019	10000	1 year	Dada Patil Mahavidyalya, Karjat	Non Government
17)	Geopolitical dispute between India and china	Lagad SJ	Geography	2019	10000	1 year	Dada Patil Mahavidyalya, Karjat	Non Government
18)	The problems faced by sarpanch in implementation of the governeemt scheme: A study of selected Grampanchayat in Shrigonda Taluka	Phulare AS	Political Science	2019	10000	1 year	Dada Patil Mahavidyalya, Karjat	Non Government
19)	Maji Amdar Vithalrao Bahilume yanche jivan vkarya	Rajguru GD	History	2019	10000	1 year	Dada Patil Mahavidyalya, Karjat	Non Government
20)	Interdisciplinary project	Kamble BA	Political Science	2020	5000	1 year	Nagarpanchayat, Karjat	Government
Total Amount						03,65,000/-		

Mr. Ingale AP (Above Table No.: 1)

सावित्रीबाई फुले पुणे विद्यापीठ
(पुणेचे पुणे विद्यापीठ)
वित्त व लेखा विभाग

संदर्भ क्र.: वित्त देयक कक्ष, २०१९-२०, १०४५/६३
दिनांक : २२.१०.२०१९

प्रति,
भा. प्राचार्य / संचालक,
सावित्रीबाई फुले पुणे विद्यापीठ,
सर्व संलग्नीत महाविद्यालये व मान्यताप्राप्त संस्था.

विषय : ASPIRE संशोधन योजनेच्या Research Mentorship Programme अंतर्गत पात्र
अध्यापकांना पहिल्या हप्त्याची रक्कम वितरित करणेबाबत...

महोदय / महोदया,

ASPIRE संशोधन योजनेच्या Research Mentorship Programme अंतर्गत सौख्य जोडलेल्या
यादीतील शिक्षकांचे संशोधन योजनेचे प्रस्ताव (सन २०१९-२१ या वर्षासाठी) मंजूर करण्यात आलेले
असून संशोधन योजनेच्या पहिला हप्त्याची (मंजूर रकमेच्या ५० टक्के) रक्कम रुपये ९,२५,००८/-
आपल्या महाविद्यालयाच्या बँक खात्यामध्ये दि. १०/१०/२०१९ रोजी जमा करण्यात आलेली आहे.

सदर संशोधन योजनेवरील सर्व खर्च मार्गदर्शक तत्वांनुसार आपल्या महाविद्यालयाच्या बँक
खात्यामार्फत करावयाचा आहे. भारत सरकारच्या नियमांनुसार संशोधन योजनेवरील
अधिकाधिक खर्च आर.टी.जी.एस. / एन.ई.एफ.टी. / धनादेशाद्वारे करावयाचा आहे. संशोधन
योजनेसाठी प्राप्त झालेले अनुदान प्राध्यापकांच्या वैयक्तिक बँक खात्यावर वर्ग करण्यात येऊ नये.

विद्यापीठामध्ये जमा केलेल्या अर्थसंकल्पानुसार पहिल्या वर्षाचा संशोधनाचा खर्च (सन
२०१९-२० या आर्थिक वर्षात) ३१ मार्च, २०२० पूर्वी करण्यात यावा व सनदी लेखापाल यांच्या सहोप
सुध्यांचे विवरणपत्र व विनियोग प्रमाणपत्र उपकुलसचिव, अंतर्गत गुणवत्ता सिध्दता कक्ष यांचेकडे
पाठविण्यात यावे. सदर हिशोब प्राप्त झाल्यानंतरच सन २०२० - २१ या आर्थिक वर्षासाठी दुसरा हप्ता
अदा करण्यात येईल.

विद्यापीठ अधिकार मंडळाने घेतलेल्या निर्णयानुसार संशोधन अनुदानाच्या अखचित
रकमेवर संबंधित आर्थिक वर्षांमध्ये १० टक्के व्याज आकारणी केली जाईल. तसेच विद्यापीठास
व्याजासहीत रक्कम प्राप्त होईपर्यंत महाविद्यालयास कोणत्याही प्रकारचे अनुदान देणं होणार नाही,
याची कृपया नोंद घ्यावी.

आपली,
सहा. वित्त अधिकारी

सोबत : वरीलप्रमाणे. UR No. MAMSH/19283/1285
DF. 10/10/2019

सावित्रीबाई फुले पुणे विद्यापीठ
वित्त व लेखा विभाग

ASPIRE RESEARCH PROJECT FOR THE YEAR 2019 - 21

50%

Sr. No.	College Name	College No.	Teacher Name	Approved Amount	Inst. Install. 50%	Total Amount	PUN CODE
1	Rayat Shikshan Sanstha Dada Patil College Addr: Karjat Ahmednagar Tal: Karjat Dist: Ahmednagar Pincode: 414402	43	Ajit Popat Ingale	150000	125000	125000	CAAAD16100



Savitribai Phule Pune University
(Formerly University of Pune)
Pune - 411007.
Internal Quality Assurance Cell (IQAC)

To,
Ajit Popat Ingale,
Assistant Professor,
Rayat Shikshan Sanstha Dada Patil College
Addr: Karjat Ahmednagar. Tal: Karjat Dist:
Ahmednagar

Subject: - Sanction of ASPIRE Research Mentorship Grant

Dear Researcher,

'ASPIRE Research Mentorship Grant' is an ambitious research funding scheme to identify young research talent in the university departments, colleges and institutions, affiliated to Savitribai Phule Pune University. The aim of providing the seed funding is to inculcate a research culture and to enable them to go forward for major financial assistance from national or international funding agencies.

The research talent is identified through rigorous screening / evaluation process by nationally and internationally renowned experts in the field, from amongst thousands of proposals received.

I am pleased to inform you that your project entitled **Development of Novel Green Methodologies in Organic Chemistry and their Applications in the Synthesis of Bioactive Compounds** has been provisionally selected for research funding of Rs.250,000.00 in the ASPIRE Research Mentorship Scheme for the year 2019-21.

As a young researcher receiving this grant, we expect you to carry out your proposed research, in the best possible manner and report to us, periodically, about the outcome, utility and impact of your work. Such a progress report is mandatory at the end of every six months, from the date of issue of this letter. The progress made in the first year will be evaluated by an expert panel, for guidance and evaluation. Needless to mention, that the progress during the first year shall form the basis for continuation of the project for the remaining year.

I specifically draw your attention to the rules and guidelines of the ASPIRE scheme, which are available at the following link -

http://boud.unopune.ac.in/BOUD_Research/Aspire_PDF/ASPIRE_Guidelines_FINAL_Draft.pdf



Please accept our heartiest congratulations to you and the leadership of your institution on such a prestigious selection.

Best Wishes



Dr Prafulla A. Pawar
Director,
Internal Quality Assurance Cell (IQAC)

Important:

Please Note the following

1. The Acceptance letter is required to be signed by the investigator and forwarded through the Head of the Department or Principal of College or Director of Institute, in the prescribed format.
2. You are requested to submit revised budget as per the amount sanctioned within 7 days after notification, so that the funds can be released. The sanctioned budget needs to be utilized strictly according to **ASPRE guidelines and the Ordinance 151 of the University.**
3. If the expert panel is not satisfied with the progress in the first year, they university may proceed to recover the sanctioned amount with interest.

Seed Money Faculty (Above Table No.: 2-19)

Est. - 1964

Member: Maharashtra D. Karastar Education Panel **Rajawati Shikshan Sanstha's**

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (02499) (0) 222534 (R) 222518 (F) 223923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
MAAC Accredited (3rd Cycle) 'A' Grade (CGPA 3.87)
Jr. College NBC Award - 12,892,801 Code No. 9PPU/AN /ASC /06 /1984
* Sarthika Poojya Puro University Best College Award (2004-2005) * Rajawati Mani Puraskar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled **"Trade Relation Between India and Amerika - Year 2018-19"** Submitted by Prof. Rodage Kailas dadasaheb, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Economics. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : / 30/3 / 2020


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble





Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

Founder: Palkabhai Dr. Karwarer Shree Patil

Rayat Shikshan Sanstha's

Estd. - 1964

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02488) (0) 222534 (R) 222518 (F) 223023 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
A. College HEC Board - 12 801 081 Code No. SPPU/AN/ABC/196/1964
* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mask Puraskar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "कृष्णा अग्निहोत्री का कथा साहित्य - नारी विमर्श" Submitted by Dr. Khilare Baby Shrimant, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Hindi. she has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 30/3/2028

Dr. I. M. Patil
Research Committee

Principal
Dr. Bal Kamble





DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (02488) (0) 222534 (R) 222518 (F) 221921 Email: dpcollege@yahoo.co.in Website: www.dpcollege.in
NAAC Accreditation (1st Cycle) A Grade (U.G.P.G. 1.01)
A College MPC Board - 52001881 Govt No. 3991/AN/192/156/1984
* Savitribai Phule Pune University Dist College Award (2004-2005) * Rajat Mail Varanasi (2015-2016)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Socio Economic Survey of the Students of Dada Patil Mahavidyalaya, Karjat: Year 2019-20" Submitted by Prof. Bhondave Angad Haribhau, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Economics. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30 / 8 / 2020


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble





Principal
DR. BAL KAMBLE
M.A., M.Ph., Ph.D.

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

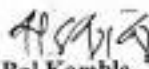
☎ (02439) (0) 222534 (R) 222518 (F) 222921 Email - dpcollege@yahoo.co.in Website - www.dpcollege.in
NAAC Accreditation (1st Cycle) B Grade (7.5/10) 2017
A College UGC Board - 12 (B) 001 (Am. No. 3992) (AN/MS/18/1) 1984
* Swachh Maharashtra University Best College Award (2018, 2019) - Rajal Mandi Parbhani (2015-2016)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "**Synthesis and Characterization of Nanocrystalline Co-Ni Ferrite Powder Through Sol-gel Auto Combustion Method**" Submitted by **Mr. Balbhim Sahebrao Maharnavar**, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by him in the Department of Physics. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 26/03/2020


Dr. I. M. Patil
Research Committee


Dr. Bal Kamble
Principal





Principal
DR. BAL KAMBLE
M.A. (POL. IND)

Principal - Prof. Subhashan D. Karmakar, Bhamburda Road

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

[Arts, Commerce and Science]

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (22488) (01) 222534 (0) 222518 (F) 227923 Email: ipc@collegepatil.com Website: www.dpcollege.in

NAAC Accreditation (3rd Cycle) - B Grade (CGPA 3.87)

College No./Phone - 12881881 Cell No. 9920749130/13011904

• Swachh Maharashtra University Dept College Award (2004-2005) - Rajal Meas Haterkar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*A Post Annealing Effect on SrF₂ Nano particles: Structural, Morphological, Functional and Dosimetric*" Submitted by **Dr. Bhadane Mahesh Sakharan**, to research Committee of Rayat Shikshan Sanstha's, Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by him in the Department of Physics. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date:

Dr. I. M. Patil
Research Committee
Co-ordinator

Dr. Bal Kamble
Principal





Principal
DR. BAL KAMBLE
D.A. WDN, P.O.

DADA PATIL MAHAVIDYALAYA

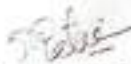
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

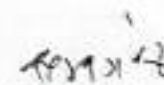
☎ (02499) (05) 222534 (H) 222518 (F) 222923 Email - dpc@collegeyashwantrao.in Website - www.dpcollege.in
NAAC Accreditation (3rd Cycle) A Grade (15/16-17)
A College/BSC Board - 12 011011, 04/06, 09/11/09/15/16/17/18
* Savitribai Phule Pune University Best College Award (2014-2015) - Rajal Mauli Prastar (2015-2016)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Phytochemical and antioxidant analysis of some medicinal plants" Submitted by Dr. Sandeep Ramchandra Patil, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by him in the Department of Botany. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 26/03/2020


Dr. L. M. Patil
Research Committee


Dr. Bal Kamble
Principal





Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

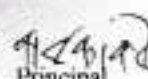
☎ (02428) (0) 222534 (R) 222518 (F) 223023 Email - dpcollege@yasho.com Website - www.dpcollege.in
NAAC Accreditation (3rd Cycle) A Grade (CGPA 3.07)
J. College (SC) Board - 12 803 891 Exam No. 2019/20/1/SC/1/5/1984
+ Santhar (Pune Univ) Dist College Award (2014, 2015) + Rajat Mani Puraskar (2016, 2017)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "**Phytochemical Study of Some Mangroves**" Submitted by Dr. Pratishtha Nitin Nagane, to research Committee of Rayat Shikshan Santha's, Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by her in the Department of Botany. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 26/03/2020


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble





Principal
DR. BAL KAMBLE
M.A., M.P.H., Ph.D.

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02488) (0) 222534 (R) 222518 (F) 222323 Email - dpatil@mahavidyalaya.co.in Website - www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
A College HSC Board - 12 085 891 Code No. SPP0130/452/06/1964
* Savitribai Phule Pune University Best College Award (2014-2015) * Royal Mass Pratishtha (2015-2016)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Analysis of Potent Phytochemicals with respect to Contraceptive activity in Advancement of Female Contraception" Submitted by Dr. Asha Bhausaheb Kadam, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by her in the Department of Botany. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: 26/03/2020


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble





Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

Founder / Padmashree Dr. Karmaveer Bhaurao Patil

Rayat Shikshan Sanstha's

Est. - 1964

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02489) (0) 222534 (R) 222516 (F) 223023 Email : dpccollege@yahoo.co.in Website : www.dpccollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
A- College ISO Board - 12 903 901 Code No. BPPU/AM/ABC/05/1964
* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mah Puraskar (2011-2012)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Salinity induced changes in antioxidant activity of Amaranthus hypochondriacus*" Submitted by Ms. Suvama Vyankatrao Gaikwad, to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by her in the Department of Botany. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30/03/2020


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble





Principal
DR. BAL KAMBLE
 M.A., M.Phil., Ph.D.

Founder - Palkeshwar In. Kamteer Bhawan Patil

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

Est. - 1964

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (24488) (O) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
 NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA) 07
 J. College HSC Board - 12 083 081 Coll. No. 8990 / AN / ANC / M / 1964
 * Savitribai Phule Pune University Best College Award (2004-2005) * Rajal Masi Puraskar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Threats to Fish Diversity and Conservation of Ecosystem in Ujani Reservoir (Near Bhigwan), Tal. Indapur, Dist. Pune" Submitted by Aast. Prof. Dr Swapna Sachin Patil to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Zoology. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date :


Dr. L. M. Patil

Research Co-ordinator


Dr. Bal Kamble

Principal





Principal
DR. BAL KAMBLE
 M.A., M.P.H., Ph.D.

Trustee - Padmashree D. Kulkarni Shiksha Trust

Rayat Shiksha Sanstha's

DADA PATIL MAHAVIDYALAYA

Est. - 1964

[Arts, Commerce and Science]
 Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02408) (0) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
 MAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.67)
 Jt. College HBC Board - 12 803 061 Coll. No. BPPU/AN/ABC/38/1994
 * Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mali Puraskar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Insect Diversity of Rehekuri (Blackbuck Sanctuary) with special reference to life cycle and niche*" Submitted by **Asst. Prof. Dr Pawar P A** to research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work Carried out by him in the Department of Zoology. She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date :


Dr. L. M. Patil

Research Co-ordinator


Dr. Bal Kamble

Principal





Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

Founder - Padmashri Shri. Kamayee Bhaurao Patil

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

Est. - 1954

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02489) (0) 222534 (R) 222518 (F) 223823 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
A. College HSC Board - 12 083 001 Coll. No. 8992 / AN / ABC / 06 / 1984
• Savitribai Phule Pune University (Dist. College Award) (2004-2005) • Royal Mail Postmark (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled " **One- Pot Green Method for the Synthesis of Oxazine Derivatives Under Aqueous Medium**" Submitted by Asst. Prof. Mr. Kshirsagar Santosh Ramchandra to research Committee of Rayat Shikshan Sanstha's, Dada Patil Mahavidyalaya, Karjat, Ahmednagar, under the provision of Seed Money, is a research work carried out by him in the Department of Chemistry. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30.3.2020

Dr. I. M. Patil

Research Committee, Co-Ordinator

Principal

Dr. Bal Kamble



'सावित्री भवन हा सर्वोच्च' - अविद्या



Founder - Padmashri Dr. Karmaveer Bhaurao Patil

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

Est. - 1964

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02488) (DI) 222534 (R) 222518 (F) 223923 Email: dpcollege@yahoo.co.in Website: www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA: 1.67)

U. College HBC Board - 12 081 001 Code No. BPUU / AN / ABC / 06 / 1964

• Savitribai Phule Pune University Best College Award (2014-2015) • Rayat Mass Puraskar (2005-2006)

Principal
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled **"Green approach to Chemo-Selective N-Boc Protection of Amines using Catalytic amount of Lithium Hydroxide Monohydrate under Solvent Free Condition "** Submitted by Asst. Prof. Mr. Sandip Pandurang Goadake to research Committee of Rayat Shikshan Sanstha's, Dada Patil Mahavidyalaya, Karjat, Ahmednagar, under the provision of Seed Money, is a research work carried out by him in the Department of Chemistry. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 30.3.2020

Dr. I. M. Patil
Research Committee, Co-Ordinator

Principal
Dr. Bal Kamble



DADA PATIL MAHAVIDYALAYA, KARJAT
ACCADEMIC RESEARCH COMMITTEE

It is certified that the proposal entitled "Soil Carbon Sequestration in Mangrove Ecosystems of Rajgad District" by Mr. Pulve Suresh Ajinath, Department of Botany has been assessed by the expert committee consisting the following members for submission to the Dada Patil Mahavidyalaya, Karjat for financial support under the scheme of Minor Research Projects:

Details of Expert Committee:

1. Dr. Mrs. I. M. Patil *I. M. Patil*
2. Dr. Mr. M. A. Patil *M. A. Patil*
3. Dr. A. B. Navale
4. Dr. Nikale V.M
5. Dr. D. M Chaudhary
6. Dr. S. R. Patil *S. R. Patil*
7. Dr. S. S. Patil
8. Mr. B. S. Mahanwar

The proposal is as per the guidelines.

[Signature]

Principal
Dada Patil Mahavidyalaya, Karjat
Dist- Ahmednagar



Recommendation of the Research Committee:

The above Research project is sanctioned/ not sanctioned under Faculty Seed Money Scheme
Sanctioned amount is Rs. 15,000/-

[Signature]
Coordinator
Research Committee

[Signature]

Principal
Dada Patil Mahavidyalaya, Karjat



Founder - Padmabhaichan D. Karmaveer Bhaurao Patil

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Est. - 1964

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02418) (0) 222534 (R) 222516 (F) 222823 Email : dcpcollege@yahoo.co.in Website : www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.87)

Jr. College NRC Board - 12 693 691 Code No. BPPU/AN/ASC/10/1964

Principal
DR. BAL KAMBLE
M.A. M.Phil. Ph.D.

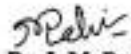
• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mani Puraskar (2005-2006)

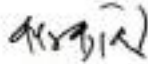
PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "*Need and Importance of Communication Skills*" submitted by Mr. Kale Ramkrushn Dnyandev to the Research Committee of Dada Patil Mahavidyalaya, Karjat, under the provision of Seed Money, is a research work carried out by him in the Department of English. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted to any other university or institute for research work.

Date: 31/03/2020


Mr. R. D. Kale
Principal Investigator


Dr. I. M. Patil
Coordinator,
Research Committee


Principal
Dada Patil Mahavidyalaya,
Karjat, Dist. Ahmednagar





Founder: Panchajanya Dr. Kancherla Shrinani Patil

Rajyal Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Est. - 1964

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (2488) (0) 222534 (R) 222518 (F) 222823 Email : dpcollege@yasho.co.in

Website : www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 1.07)

J. College HBC Board - 12.903.907 Code No. BPPU/AN/ASC/06/1964


Principal
DR. BAL KAMBLE
P.A. M.Phil. Ph.D.

• Savitribai Phule Pune University Best College Award (2004-2005) • Rajyal Mantri Puraskar (2005-2006)

PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "GEO-POLITICAL DISPUTE BETWEEN INDIA AND CHINA AND ITS IMPACT ON BILATERAL TRADE" Submitted by **Dr. Lagad Santosh Jabaji**, to research Committee of Dada Patil Mahavidyalaya, Karjat, Dist. Ahmednagar under the provision of Seed Money, is a research work Carried out by him in the Department of Geography, he has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date: / /


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble

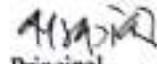


PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "**The Problems Faced by Sarpanch in Implementation of the Government Scheme : A Study of Selected Grampanchyats in Shrigonda Taluka**" Submitted by **Prof. Fulari Archana Subhash**, to research Committee of Dada Patil Mahavidyalaya, Karjat, Dist. Ahmednagar under the provision of Seed Money, is a research work carried out by him in the Department of Political Science, She has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : / /


Dr. I. M. Patil
Research Committee


Principal
Dr. Bal Kamble



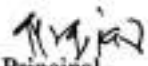
PROJECT COMPLETION CERTIFICATE

This is to certify that the Minor Research Project entitled "Maji Amdar Vitthalrao Bhailume Yanche Jivan V karya " Submitted by Prof. Rajguru Gautam Dhanaji, to research Committee of Dada Patil Mahavidyalaya, Karjat, Sanction by Nagar Panchayat, Karjat is a research work Carried out by him in the Department of History. He has successfully completed this project according to the regulations of the college and has submitted to Dada Patil Mahavidyalaya, Karjat. The results embedded in this project have not been submitted any other university or institute for research work.

Date : 11/07/2020


Dr. I. M. Patil
Research Committee




Principal
Dr. Bal Kamble
PRINCIPAL
Dada Patil Mahavidyalaya,
Karjat, Dist. Ahmeonagar



Nagarpanchayat Project (Above Table No.: 20)



नगरपंचायत कर्जत

ता. कर्जत, जि. अहमदनगर. पिन - ४१४४०२ (०२४८९) - २२२०१२

E-mail : ookarjat55@gmail.com

सौ. प्रतिभा नंदकिशोर भैलुमे
नगराध्यक्षा, नगर पंचायत, कर्जत

जाचक क्र. २०१५-२०

दिनांक : ०६/०३/२०२०

प्रति,

मा. प्राचार्य,

दादा पाटील महाविद्यालय, कर्जत,

ता. कर्जत, जि. अहमदनगर

..... यांना

महोदय,

आपल्या महाविद्यालयातील इतिहास विभागातील प्रा. राजगुरू जी. डी. यांना ५००० रुपये आर्थिक सहाय्य आम्ही देऊ इच्छित आहोत या आर्थिक सहाय्याचा उद्देश म्हणजे आमचे सासरे माजी आमदार विठ्ठलराव सहादू भैलुमे यांनी कर्जत-जामखेड विधानसभा मतदारसंघाचे प्रतिनिधित्व केले होते. त्यांचे कार्य एकूण प्रेरणादायी व समाजहिताचे होते; याची नोंद घेतली जावी व आजच्या विद्यार्थी आणि समाजाला माहिती मिळावी म्हणून इतिहास विभागाने त्यांच्या कार्यावर संशोधन करण्याच्या हेतूने हे आर्थिक सहाय्य देण्याचा उद्देश आहे. तरी आपण ते रबीकाराचे हि विनंती

कळावे.

आपली विश्वासू,

(कर्जत नगराध्यक्षा)



DADA PATIL MAHAVIDYALAY, MAIN KIRD
A/P. S. TAL. KARJAT, DIST. AHMEDNAGAR
414402
E-Mail: dpcollege@yahoo.co.in

Receipt Voucher

No. 29 Dated : 8-Aug-2020

Particulars	Amount
Account: Non Gov Research Project	5,000.00

Through :
CASH
On Account of :
Nagarpanchayat Karjat Amount Received
Amount (In words) :
INR Five Thousand Only

Rs. 5,000.00



[Signature]
Principal
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar



3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2018-19

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Sr. No.	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non-Government)
1)	Study of Distribution of Ant Fauna (Hymenoptera:in Different Habitats at Karjat City, District Ahmednagar of Maharashtra)	Mr. M. R. Khan	Zoology	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
2)	Role of Watershed Management in Socio-economic Development: A case study of Ideal Village Hivrebajar	Dr. V. P. Pund	Economics	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
3)	Demographic Development per and Post Watershed Development of model Watershed Village Ralegansiddi in Parner Tahesil	Dr. S. J. Lagad	Geography	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
4)	Assessment of Meteorological Drought of Ahmednagar District	Mr. V. C. Wardule	Geography	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
5)	Jayashri Ray ka Katha Sahitya Ek Adhyayan	Smt. R. R. Salve	Hindi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
6)	Bharatiya Tatha Paschyatya Naty Avdharane ke Vividh Aayam	Mr. B. D. Gavhane	Hindi	2018-19	10000	1 year	Seed Money, Dada Patil	Non-Government

							Mahavidyalaya, Karjat	
7)	Development of Green Protocols for the Synthesis of Diversely Functionalized Imperative Heterocyclic Scaffolds	Dr. K. S. Sasane	Chemistry	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
8)	Marathi Vidnyankatha: Tattvik Mimansa	Dr. V. D. Dhanve	Marathi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
9)	Dalitmitra Dada Patil Yanche Karjat Talukyatil Rayat Shikshan Sansthetil Yogdan	Mr. H. P. Bhailume	History	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
10)	A study Allegorical Significance of 'Animal Farm' in relation to the Russian Revolution of 1967	Mr. R. D. Kale	English	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
11)	Yashvantrao Chavhan: Krushnkanth ek Abhyas	Dr. B. M. Kale	Marathi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
12)	Comparative Study of Female Characters for the quest of identity in the play a "Doll's House" and the Haveli	Smt. M. D. Suryawanshi	English	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
13)	Mobile Phone Cloning	Mr. R. B. Salunkhe	BCA	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government

14)	Korti Gavatil Kukutpalan Vyavasayikancha Samasyanacha Abhyas	Mr. Jadhav Sadguru Hanumanth	Economics	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
15)	Godan Upanyas Ka Kathya Aur Shilp	Miss. Kadam Sonali S.	Hindi	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
16)	Smart Cradle	Miss. Mohite V. D.	Physics	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
17)	Low Cost Grain Mill	Mr. Bhujbal A. B.	Physics	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
18)	Development and Application of Green Methodology for Synthesis of Organic Compound	Mr. Gangarde Uddhav S.	Chemistry	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
19)	Development of Application Solvent-Free Protocols For Synthesis of Organic Compounds	Miss. Pawar Anuadha Maruti	Chemistry	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
20)	Preparation and Application of Calcined Mg/Al Hydrotalcite in Organic Synthesis	Miss. Shinde Rupali Mahadev	Chemistry	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
21)	Physiochemical Characteristics of Vermicompost and Vermiwash	Miss. More Aishwarya & Mr. Kharade Sandeep	Zoology	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government

22)	Comparative Study of Various Operating Systems	Mr. Shelake Prashant	BBA (CA)	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
23)	Effect of different liquid Biofertilizer on Fenugreek Trigonella Foenum Graecum L.	Mr. Shekale Damaji T.	Botany	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
24)	Characterization in Hamlet	Miss. Nimbalkar Swapna Sanjay	English	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
25)	Kamla Da's Poem 'An Introduction: A Critical Study	Miss. Nimbalkar Komal Suresh	English	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
26)	Extraction and Characterization of lecithin from goat tissues	Miss. Rekha G. Shinde	Zoology	2018-19	15000	1 year	Yashkalyani, Pune	Non-Government
27)	Chilawali gavatil jal shivar yojana rabhavitana yenarya samsyancha abhyas	Mr. Umesh B Jadhav	Economics	2018-19	10000	1 year	Yashkalyani, Pune	Non-Government
28)	Solar based multipurpose charger	Mr. Yogesh A. Pathak	Physics	2018-19	10000	1 year	Yashkalyani, Pune	Non-Government
29)	Identification and delineation of ground water potential zone in semi arid region: A case study Karjat Thesil	Mr. Agastirishi B. Toradmal	Geography	2018-19	10000	1 year	Yashkalyani, Pune	Non-Government
30)	Study of Weders Diversity in the Catchment area of Ujani Reservoir, Solapur District, Maharashtra (India)	Mr. D. S. Kumbhar	Zoology	2018-19	2000	1 Year	Archana Analytical Services	Non-Government

31)	Grant allotted to Geography Students	Mrs. M. R. Jadhav	Geography	2018-19	2000	1 Year	Knowhere Geomatics Aundh, Pune	Non-Government
32)	Grant allotted to Geography Students	Mrs. M. R. Jadhav	Geography	2018-19	2000	1 Year	Ad. Dhere S.V	Non-Government
33)	Grant allotted to Geography Students	Mrs. M. R. Jadhav	Geography	2018-19	1000	1 Year	S.B. Constructions, Tal: Karjat	Non-Government
34)	Project for PG Students	Mr. Kulbhushan Sasane	Chemistry	2018-19	2000	1 Year	Cleanchem Lab, Mumbai	Non-Government
35)	M.Sc-II Project	Mr. Nale Sachin Ankush	Physics	2018-19	1000	1 Year	Yogiraj Foundation, Jamkhed	Non-Government
36)	M.Sc-II Project	Mr. Akshay Vitthal Mohite	Physics	2018-19	1000	1 Year	Mr. Akash Mishra, Branch Manager, Bank of Maharashtra Karjat	Non-Government
37)	Students Research Projects	Miss. Nanaware N. R.	Physics	2018-19	1000	1 Year	Dhobe Mushroom Industry, Karjat	Non-Government
38)	1. Lokkatha-Ek Lok Vangmay Prakar; 2. Loksahityachi Multatve aani Marathi Loksahitya	1. Mr. Vaibhav Sanjay Gosavi; 2. Miss. Bhoje Dipali Krushna	Marathi	2018-19	1000	1 Year	Bhimabai Gangaram Bagal Sarvjanik Vachnalaya, Nandgav, Karjat	Non-Government
39)	Students Research Projects	Miss. Hajare Komal	Physics	2018-19	1000	1 Year	Mr. Pathak Y.A	Non-Government
Total Amount						2,13,000/-		

Seed Money Faculty (Above Table No.: 1-13)

Founder - Padmabhushan Dr. Karmaveer Bhaurao Patil **Rajal Shikshan Sanstha's** Estd. - 1964

DADA PATIL MAHAVIDYALAYA
 (Arts, Commerce and Science)
 Karjat, Dist. Ahmednagar - 414 402 (M.S.)
 ☎ (02486) (0) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
 NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
 J. College HBC Board - 12,000,001 Code No. SPPU / AN / ASG / 06 / 1964
 H. Principal **DR. SANJAY NAGARKAR** • Sahakarai Phule Pune University Best College Award (2004-2005) • Rajal Mauli Puraskar (2005-2006)
 M.A., M.Phil., Ph.D., SET

Date: 06/03/2023

The following 13 (Thirteen) Staff were granted Seed Money Project for the FY 2018-19. The said letter is in reference to the seed money project distribution list attached herewith.

Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/ non-Government)
Study of Distribution of An Frana (Hymenoptera) in Different Habitats at Karjat City, District Ahmednagar of Maharashtra)	Mr. M. R. Khan	Zoology	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Role of Watershed Management in Socio-economic Development: A case study of Ideal Village Hivrebarjar	Dr. V. P. Pund	Economics	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Demographic Development per and Post Watershed Development of model Watershed Village Rategansiddi in Parner Tahasil	Dr. S. J. Lagad	Geography	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Assessment of Meteorological Drought of Ahmednagar District	Mr. V. C. Wardale	Geography	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Jayashri Ray ka Katha Sahitya Ek Adhyayan	Smt. R. R. Salve	Hindi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Bharatiya Tatha Paschyatya Naty Avdharane ke Vividh Aayan	Mr. B. D. Gavhane	Hindi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Development of Green Protocols for the Synthesis of Diversely Functionalized Imperative Heterocyclic Scaffolds	Dr. K. S. Sasane	Chemistry	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government



PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar

Marathi Vidyanaksha: Tattvik Mimansa	Dr. V. D. Dharve	Marathi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Dalitmitra Dada Patil Yanche Karjat Tahkyatil Rayat Shikshan Sanstheil Yogdan	Mr. H. P. Bhalume	History	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
A study Allegorical Significance of 'Animal Farm' in relation to the Russian Revolution of 1967	Mr. R. D. Kale	English	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Yashwantrao Chavhan: Krushkarnik ek Abhyas	Dr. B. M. Kale	Marathi	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Comparative Study of Female Characters for the quest of identity in the play a "Doll's House" and the Haveli	Smt. M. D. Suryawanshi	English	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Mobile Phone Cloning	Mr. R. B. Sahunkhe	BCA	2018-19	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Total Amount				1,30,000/-			



PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

Seed Money Faculty (Above Table No.: 14-25)

Founder : Padmabhushan Dr. Kamaveer Bhaurao Patil Rayat Shikshan Sanstha's Estd. - 1954



DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)
 Karjat, Dist. Ahmednagar - 414 402 (M.S.)
 ☎ (02408) (0) 222534 (F) 222518, Email : dpcollege@yahoo.co.in Website : www.dpatilcollege.in
 NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
 J. College HSC Board - 12.003.001 Code No. BPPU / AN / ASC / 01 / 1984

W. Principal
DR. SANJAY NAGARKAR
 M.A., M.Phil., Ph.D., SET

e Sarvabhai Phule Pune University Best College Award (2004-2005) Rajat Mauli Pursekar (2005-2006)

Date: 06/03/2023

The following 12 (Twelve) Students were granted Seed Money Project for the FY 2018-19.

The said letter is in reference to the seed money project distribution list attached herewith.

Sr. No.	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-Investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/ non-Government)
1]	Korti Gavril Kokotpalan Vyavsayikancha Samasyancha Abhyas	Mr. Jadhav Sadguru Hanumanth	Economics	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
2]	Godan Upanyas Ka Kathya Aur Shilp	Miss. Kadam Sonali S.	Hindi	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
3]	Smart Cradle	Miss. Mohite V. D.	Physics	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
4]	Low-Cost Grain Mill	Mr. Bhujbal A. B.	Physics	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
5]	Development and Application of Green Methodology for Synthesis of Organic Compound	Mr. Gangrade Uddhav S.	Chemistry	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
6]	Development of Application Solvent-Free Protocols For Synthesis of Organic Compounds	Miss. Pawar Anusha Maruti	Chemistry	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
7]	Preparation and Application of Calcined Mg/Al Hydroxalite in Organic Synthesis	Miss. Shinde Rupali Mahadev	Chemistry	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
8]	Physicochemical Characteristics of Vermicompost and Vermiwash	Miss. More Ashwarya & Mr. Kharade Sandeep	Zoology	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
9]	Comparative Study of Various Operating Systems	Mr. Shelake Prashant	BBA (CA)	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government



W. PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar

10	Effect of different liquid Biofertilizers on Fenugreek Trigonella Foenum Graecum L.	Mr. Shekale Damaji T.	Botany	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
11	Characterization in Hamlet	Miss. Nimbalkar Swarna Sanjay	English	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
12	Kamla De's Poem 'An Introduction': A Critical Study	Miss. Nimbalkar Komal Suresh	English	2018-19	2000	1 Year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Total Amount							24,000/-	



PRINCIPAL
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

Yashkalyani, Pune (Above Table No.: 26-29)

 Founding: P. Ramkrishnan Dr. Karmaveer Bhamburda Patil Rayat Shikshan Sanstha's Estd. - 1964
DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)
☎ (02488) (0) 222534 (R) 222518 (F) 222923 Email : dpcollege@yahoo.co.in Website : www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
Jr. College HBC Board - 12.001.001 Code No. SPPU / AN / ABC / 95 / 1964

* Savitribai Phule Pune University Best College Award (2004-2005) * Rayat Mauli Puraskar (2005-2006)

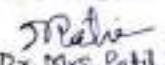
Date: 10.01.2019

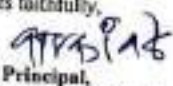
To,
The Director,
Yashkalyani Gramin Sevabhavi Sanstha's,
Shivam Apartment, Nadihenagar, Kalewadi,
Pune-17,

Subject: - "Submission of Minor Research Project proposal for funding"

Respected Sir,
As per the objectives of our Collaborative Research Activities, we will try to strengthen the research of our faculty collaboratively. With this theme, We are forwarding herewith the Minor Research Project Proposals.
As given below:

Sr.No.	Name of Fellow	Designation	Title of Project
1.	Miss. Rekha J Shinde	Asst.Prof. in Zoology	Extraction and Characterization of Lectin from Goat Tissues.
2.	Mr. Umesh B Jadhav	Asst.Prof. in Economics	Chilawadi Govani Jaisikhar Fojana Bahavitana Yashrya Sanshyancha Adhyas
3.	Mr. Yogesh A Pathak	Asst. Prof in Physics	Solar Based Multipurpose Charger
4.	Mr. Agastirishi B. Toradmal	Asst.Prof in Geography	Identification and Delineation of Ground Water Potential Zone in Semi Arid Region: A Case study Karjat Tehsil

Thanking you in anticipation.
With warm regards,

Dr. Mrs. Patil Indira M.
Chairman Research Committee

Yours faithfully,

Principal,
Dada Patil Mahavidyalaya
Karjat, Dist- Ahmednagar.

O/C



(दि.नं. : एए-४९११०/२०१९)



यशकल्याणी ग्रामीण सेवामावी संस्था, पुणे

स्थापना १९ मार्च १९६२



पत्ता : स.नं. १११/११/२ फाटो नं.५,
दिव्य अग्रमंड, कांजूर, कांजूर जिल्हा पुणे ४२०.
फोन नं. - ६६६६६६१९ / ६६६६६६२० / ९९१९५१३३९
ई मेल - yashkalyani@sewamaavi@gmail.com

आवक सं. : ८

दिनांक : ०५/०४/२०१९

To,
The Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist. Ahmednagar.

Subject: - Sanction Letter for Minor Research Project.

Respected Sir,

As per our knowledge and references from our partners Dada Patil Mahavidyalaya Karjat is renowned college which keep high standards of academic, co- curricular and research records. Our Yashkalyani Gramin Sevabhavi Sanstha is well-known as a huge supporter in educational and research field. For the sake of your students and teachers who are interested in research we are releasing the funds to support their research projects. The list of selected students and teachers is as follow.

Sr.No.	Name of Fellow	Designation	Title of Project	Sanctioned Amount (Rs.)
1.	Miss. Rekha J Shinde	Asst.Prof. in Zoology	Extraction and Characterization of Lecithin from Goat Tissue.	15,000/-
2.	Mr. Umesh B Jadhav	Asst.Prof. in Economics	Chilawadi Gavati Jalohvar Toyana Badawitana Yantarya Sanshyanacha Abhyas	10,000/-
3.	Mr. Yogesh A Pathak	Asst. Prof in Physics	Solar Based Multipurpose Charger	10,000/-
4.	Mr. Agastirishi B. Toradmal	Asst.Prof in Geography	Identification and Delineation of Ground Water Potential Zone in Semi Arid Region, A Case study Karjat Tehsil	10,000/-

Thanking you.



यशकल्याणी ग्रामीण सेवामावी संस्था, पुणे.
Yours faithfully,

Mr. Ganesh Kare Patil
Director,

Yashkalyani Gramin Sevabhavi Sanstha's

Copy to-

1. Research Committee
2. Miss R.J. Shinde (Principal Investigator)
3. Mr. Y.A. Pathak (Principal Investigator)&
4. Mr. U.B. Jadhav (Principal Investigator)
5. Mr. A.R. Toradmal

संस्था कार्यालय पुणे : यशकल्याणी ग्रामीण सेवा, पुणे येथील, कांजूर, जिल्हा, पुणे.



(सं.नं. : एए-४३१२३/पुणे)



यशकल्याणी ग्रामीण सेवाभावी संस्था, पुणे

संस्था ११ मार्च २०१२

पत्ता : प.नं. ११२/११/२ फर्गट रोड,
सिमा अस्पॉर्ट, नंदेरा, कारजत पुणे ४१.
फोन नं. - ८८८८८८१९ / ८८८८८९९९ / ९९१९९९९९
ई मेल - yashkalyani2sanstha@gmail.com



पत्रक नं. :

दिनांक : ०५/०४/२०१९

To,
The Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist. Ahmednagar.

Subject: - Regarding the Grant for Minor Research Project.

Respected Sir,

With reference to above subject, we are releasing the required amount as per the budget for the Research Project Proposal. The details of sanctioned amount are as follows:

Name of the Account holder	Yashkalyani Gramin Sevabhavi Sanstha, Pune
Name of Bank	NKGSB Bank
Cheque Number & Date	046809 Date: 05/04/2019
Amount	Rs. 45,000/-

Thanking You,



यशकल्याणी ग्रामीण सेवाभावी संस्था, पुणे

Yours' Faithfully,

Mr. Ganesh Kare Patil
Director,

Yashkalyani Gramin Sevabhavi Sanstha's

संस्था शाखा कार्यालय पत्ता : यशकल्याणी ग्रामीण सेवाभावी संस्था, पु.पो.कारजतवाडी, ता.कारजत, जि.अहमदनगर.



(सं.नं. : एम-४३१२३/पुणे)



यशकल्याणी ग्रामीण सेवाभावी संस्था, पुणे

संस्था ११ मार्च २०१९

पत्ता : प.नं. ११२/११/२ फ्लॉर नं.५,
सिद्ध अस्पॉर्ट्स, नंदेरा, कारजत पुणे ४१.
फोन नं. - ८८८८८८१९ / ८८८८८९५० / ९९१९५३१९
ई मेल - yashkalyani2sanstha@gmail.com



पत्रांक नं. :

दिनांक : ०५/०४/२०१९

To,
The Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist. Ahmednagar.

Subject: - Regarding the Grant for Minor Research Project.

Respected Sir,

With reference to above subject, we are releasing the required amount as per the budget for the Research Project Proposal. The details of sanctioned amount are as follows:

Name of the Account holder	Yashkalyani Gramin Sevabhavi Sanstha, Pune
Name of Bank	NKGSB Bank
Cheque Number & Date	046809 Date: 05/04/2019
Amount	Rs. 45,000/-

Thanking You,



यशकल्याणी ग्रामीण सेवाभावी संस्था, पुणे

Yours' Faithfully,

Mr. Ganesh Kare Patil
Director,

Yashkalyani Gramin Sevabhavi Sanstha's

संस्था कार्यालय पत्ता : यशकल्याणी ग्रामीण सेवाभावी संस्था, पु.नं. ११२/११/२, फ्लॉर नं. ५, सिद्ध अस्पॉर्ट्स, नंदेरा, कारजत, जि. अहमदनगर.





NKGSB Bank

एनकेएसबी बँक

Shop no.12, 14
14, Magarpeta City Road/Magarpeta, Hedapur, Pune - 411028,
PIN CODE : NKGS000052

VALID FOR THREE MONTHS FROM DATE OF ISSUE
चिंक
Date: **05042019**

Pay **Principal Dada Patil Mahavidyalaya** | **राजा** or Or Bearer
₹ Rupees **Forty five thousand only**

552100100000797

अदा करे: ₹ **45,000/-**



For **YASHKALYAN GRAMIN SEVADHAVI SANSTHA**
यशकल्याण ग्रामीण सेवाधारी संस्था, पुणे.
[Signature]
Chairman/Secretary/Treasurer
Please sign above

Payable at par or otherwise

046809 4110860060 000797* 31

Archana Analytical Services (Above Table No.: 30)

Founder: Pankajbhai S. Kumbhar & K. S. Patil Rayat Shiksha Samithi's Estd. - 1954

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

Princa
DR. BAL KAMBLE
M.A., M.Phil., Ph.D.

☎ (2448) (D) 22204 (R) 22218 (F) 22202 Email: dpcollege@yahoo.co.in Website: www.dpcollege.in
NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.37)
Jr. College HBC Board - 12083.001 Code No. SPPU / AN / ABC / 04 / 1954

• Savitribai Phule Pune University Best College Award (2004-2005) • Rayat Mauli Puraskar (2005-2006)

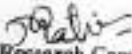
Date: 21/02/2019

To,
The Director,
Archana Analytical Services,
"Sahejand Appartment" 486/A/2,
Jadgnale Colony, Prathibha Nagar, Kolhapur-416008


COMPLETION CERTIFICATE

This is to certify that the project entitled "Study of Waders Diversity in the catchment area of Ujani reservoir, Solapur District, Maharashtra (India)" was satisfactorily completed and submitted by Prof. Digvijay S. Kumbhar (Principal Investigator) Department of Zoology to the Research committee, Dada Patil Mahavidyalaya, Karjat, under the Industry funded project scheme. Prof. Digvijay S. Kumbhar worked on this project in the Department of Zoology. In my opinion, is worthy of consideration for provision of required grant in accordance with the regulations of Archana Analytical Services. The results embodied in this project have not been submitted to any other University or Institute for research project.

So, the Research committee is requested you to release the required grant as per your letter Ref. No. AAS/DPME/MP/2018-19, Dated, 01/09/2018.


Co-ordinator (Research Committee):
Smt. Dr. Indira M. Patil
Head and Associate Professor
Department of Zoology
Dada Patil Mahavidyalaya, Karjat

Principal,
Dada Patil Mahavidyalaya, Karjat


Signature of Researcher:
Prof. D.S. Kumbhar (Principal Investigator)

Encl- 1) Hard copy of Research Project
2) Utilization Certificate and statement of expenditure.



**Utilization of Financial Support
For
INDUSTRY FUNDED RESEARCH PROJECT**

Name of the Principal Investigator:	Mr. Digvijay S.Kumbhar
Designation:	Assistant Professor, Department of Zoology
Name of the Institute where project work carried out:	Department of Zoology, Dada Patil Mahavidyalaya, Karjat, Dist. Ahmednagar.
Funding Agency:	Archana Analytical Services, Kolhapur
Year :	2018-2019
Title of the Project:	Study of Waders Diversity in the catchment area of Ujani Reservoir, Solapur District, Maharashtra (India)
Amount Sanctioned:	2000/- (Two thousand Rupees only)
Amount Utilized	2000/- (Two thousand Rupees only)

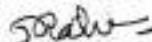
Utilization Details

Sr. No.	Particulars	Quantity	Amount spent in Rs.
01	Reference Material (Research Paper downloading & Printing)	200 copies	400/-
02	Field Visits (Travelling)	Total 4 visits	1000/-
03	Photo plates	14 plates	210/-
04	Printing	74 pages	370/-
05	Spiral Binding	2 No.s	50/-
Total:			2000/-



Mr. Digvijay S. Kumbhar
(Principal Investigator)

The Research committee checked all the bills of Industry funded Research project submitted by Mr. D.S.Kumbhar during the academic year 2018-19, and found correct.



Dr. Mrs. Indira M. Patil
(Co-ordinator, Research Committee)

Head
Department of Zoology
Dada Patil Mahavidyalaya, Karjat

Encl. All the Bills.



Archana Analytical Services

Archana Analytical Services, Kolhapur
Address: Archana Road, P. O. 422002, Kolhapur

Ref: AAS/DPMK/MRP/2018-19

Date: 01/09/2018

To,
Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist. Ahmednagar.

Subject: - Sanction Letter for Minor Research Project.

Respected Sir,


With reference to above subject, I am pleased to inform you that, we had decided to sanction the required amount as per the budget for the Research Project Proposal of Mr. D. S. Kumbhar, entitled "Study of Waders Diversity in the catchment area of Ujani Reservoir, Solapur District, (MS) India".

Sanctioned amount will be release after successful completion of Project.

Thanking you.

Yours faithfully,




Dr. Vikas V. Jadhav
Director,

Archana Analytical Services, Kolhapur

Copy to-

1. Head, Department of Zoology
2. Mr. D. S. Kumbhar (Principal Investigator)



Office address

Archana Analytical Services, Kolhapur
Address: Archana Road, P. O. 422002, Kolhapur
Contact: 9805555410, For: vikasvjadhav@gmail.com

Laboratory Address

Archana Analytical Services, Kolhapur
Address: Archana Road, P. O. 422002, Kolhapur
Contact: 9805555410

Archana Analytical Services

(Consultants for Environment, Health and Safety)
Udyog Adhar Reg. No. MH1500001832

Ref: AAS/DPMK/MRP/2018-19

Date: 05/03/2019

To,
Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist. Ahmednagar.

Subject: - Regarding the Grant for Minor Research Project.

Respected Sir,

With reference to above subject, we are releasing the required amount as per the budget for the Research Project Proposal of Mr. D. S. Kumbhar, entitled "*Study of Waters Diversity in the catchment area of Ujani Reservoir, Solapur District, (MS) India*".

The details of Sanctioned amount are as follows.

Name of the Account holder	Archana Analytical Services
Name of the Bank	Bank of Maharashtra (Kolhapur Branch)
Cheque Number & Date	027871 Date:
Amount	2000/- (Two Thousand Rupees only)

Thanking you.

Yours faithfully,

Dr. Vikas V. Jadhav
Director,

Archana Analytical Services, Kolhapur



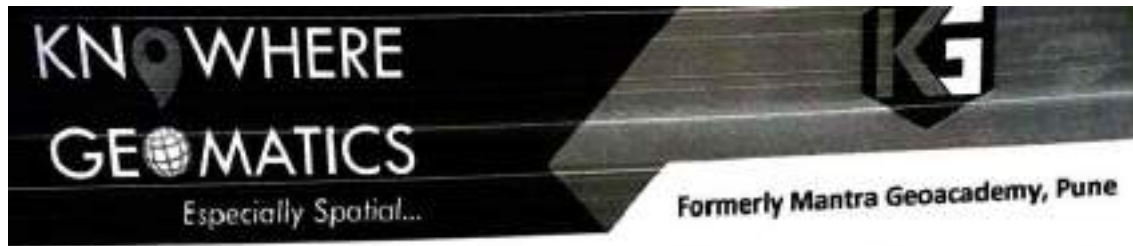
Office address

Sourabh Apartment, 486/A/2, Jalgadale
Erandi, Erandibhi Nagar, Kolhapur-416008
Contact: 9405553405
soa@rsjadhav@gmail.com

Laboratory Address

DST-FIST Analytical Instrumentation Laboratory,
Jaysingpur College, Jaysingpur-416101,
Tal-Shiroli, Dist-Kolhapur, Maharashtra
Contact: 9405553405

Grant Alloted to Geography Students
Funding Agency: Knowhere Geomatics Aundh, Pune
(Above Table No.: 31)



Ref:

Date:

To,
Mrs. Madhuri R. Jadhav
Head
Dada Patil Mahavidyalaya Karjat,
Dist.- Ahmednagar

Subject: - with reference of your letter No. 1, Dated on 22/02/2019.

Respected Sir,

With reference of your letter Dated on 22/02/2019. It's our pleasure to assign financial grand for need post graduate students from our well-knownin

We are glad to inform you that yours institute assign Rs. 2000/- fund for the research project. Department of geography gives assurance to you that yours great is fully utilize only for student research project.

Once again thankful to yours well-known institute for kind support.

Thanking You,

R. R. N.

Regards
Mr. Ramesh Nannware
Director
KNOWHERE GEOMATICS



Est- 1985

REACCREDITED BY NAAC 'A' Grade (C.G.P.A. 3.07)



Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat,

Dist- Ahmednagar (M.S) - 414402

Department of Geography



Head
Mrs. Madhuri R. Golave

M.Sc., B.Ed., SET.

Mobile No. 989223668

E-mail: jadhavgolave@gmail.com

E Mail- geographydpmk@gmail.com

Website- www.dpcollege.org

To,
Mr. Ramesh Nannware

Director

KNOWHERE GEOMATICS

Omkar Complex, Office No 12,

DP Road, Aundh, Pune- 411007

Subject: - Fund for Research Project.

Dear Sir,

Post graduate students of Geography Department have to complete the research projects. For this, they need the economic assistance from the non-governmental institution. Therefore, we request you to assist our student financial grant in order to encourage them to do research in their field.

Thanking You,

Head

Department of Geography
Dada Patil Mahavidyalaya, Karjat,
Dist.- Ahmednagar



Grant Alloted to Geography Students
Funding Agency: Ad. Dhere S.V
(Above Table No.: 32)

अॅड. संग्राम विठ्ठलराव डेरे

बी.ए.एल.एल.बी.
अॅडव्होकेट



ऑफिस - बगरपंचायत शेजारी
कर्जत, शॉप नं. १ मेनरोड कर्जत,
ता. कर्जत, जि. अ. बगर
मो. ९९७९९९९९९९

To,

Mrs. Madhuri R. Jadhav

Head

Dada Patil Mahavidyalaya Karjat,

Dist.- Ahmednagar

Subject: - with reference of your letter No. 1, Dated on 22/02/2019.

Respected Sir,

With reference of your letter Dated on 22/02/2019. It's our pleasure to assign financial grand for need post graduate students from our well-knownin

We are glad to inform you that yours institute assign Rs. 2000/- fund for the research project. Department of geography gives assurance to you that yours great is fully utilize only for student research project.

Once again thankful to yours well-known institute for kind support.

Thanking You,



[Signature]
Regards
Ad. Dhere Sangram V
D.A.L.L.B.
22/02/2019
9979999999

1965



Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat,

Dist- Ahmednagar (M.S) - 414402

Department of Geography

E Mail- geographydpmt@gmail.com

Website- www.dpcollege.org

REACCREDITED BY NAAC



Head

Mrs. Madhuri R. Gulave

M.Sc., B.Ed., SET.

Mobile No. 989223668

E-mail: jadhavgulave@gmail.com

To,
Adv. Sangram Vitthalrao Dhore
Karjat, Tal- Karjat,
Dist- Ahmednagar

Subject: - Fund for Research Project.

Dear Sir,

Post graduate students of Geography Department have to complete the research projects. For this, they need the economic assistance from the Alumni. Therefore, we request you to assist our student financial grant in order to encourage and motivate them to do research in their field.

Thanking You,

Head

Department of Geography
Dada Patil Mahavidyalaya, Karjat,
Dist.- Ahmednagar



1985



REACCREDITED BY NAAC 'A' Grade / C.C.P.A. 2007

Rajawade Sanshodhan Sanstha's

Dada Patil Mahavidyalaya, Karjat,

Dist- Ahmednagar (M.S) - 414402

Department of Geography



Head

Mrs. Madhuri R. Gulave

M. Sc., B.Ed., SET.

Mobile No. 996223669

E-mail: jadhavgulave@gmail.com

E Mail- geographydpmk@gmail.com

Website- www.dpcollege.org

To,
Adv. Sangram Vitthalrao Dhore
Karjat, Tal- Karjat,
Dist- Ahmednagar

Subject: - Received grant for Research Project.

Respected Sir,

We are glad to inform you that yours institute assign Rs. 2000/- fund for the research project. Department of geography gives assurance to you that yours great is fully utilize only for student research project.

Once again thankful to yours well-known institute for kind support.

Thanking You,

Head

Department of Geography
Dada Patil Mahavidyalaya Karjat,
Dist.- Ahmednagar



Grant Allotted to Geography Students
Funding Agency: S.B. Constructions, Tal: Karjat
(Above Table No.: 33)

॥ भैरवनाथ प्रसन्न ॥

एस.बी.लाळे कन्स्ट्रक्शन अँड स्टोन केशर

प्रो. प्रा. सागर भाऊसाहेब लाळे मो.नं. ९९७०४६२२२२, ९९७०४२९८४५
मु.पो. बहिरोबावाडी, ता.कर्जत, जि.अहमदनगर

To,
Mrs. Madhuri R. Jadhav
Head
Dada Patil Mahavidyalaya Karjat,
Dist.- Ahmednagar

Subject: - with reference of your letter No. 1, Dated on 22/02/2019.

Respected Sir,

With reference of your letter Dated on 22/02/2019. It's our pleasure to assign financial grand for need post graduate students from our well-known institute.

We are glad to inform you that yours institute assign Rs. 1000/- fund for the research project. Department of geography gives assurance to you that yours great is fully utilize only for student research project.

Once again thankful to yours well-known institute for kind support.

Thanking You,

S. B. Laje

Your Faithfully

S. B. Laje Construction & Stone Crusher,
Ap. - Bahirobawadi, Tal. - Karjat,
Dist- Ahmednagar



Est- 1985

REACCREDITED BY NAAC 'A' Grade (C.G.P.A 3.87)



Rajal Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat,

Dist- Ahmednagar (M.S) - 414402

Department of Geography



Head

Mrs. Madhuri R. Gulave

M. Sc., B.Ed., NET.

Mobile No. 9916233468

E-mail: jodhergulaivo@gmail.com

E Mail- geographydpmk@gmail.com

Website- www.dpcollege.org

To,
S. B. Laje Construction & Stone Crusher,

Ap. - Bahirobawadi, Tal. - Karjat,

Dist- Ahmednagar

Subject: - Fund for Research Project.

Dear Sir,

Post graduate students of Geography Department have to complete the research projects. For this, they need the economic assistance from the non-governmental institution. Therefore, we request you to assist our student financial grant in order to encourage them to do research in their field.

Thanking You,


Head

Department of Geography
Dada Patil Mahavidyalaya Karjat,
Dist.- Ahmednagar



-1985

REACCREDITED BY NAAC 'A' Grade (U.G.P.A.S)



Rayat Shikshan Sanstha's
Dada Patil Mahavidyalaya, Karjat,

Dist- Ahmednagar (M.S) - 414402

Department of Geography

E Mail- geographydpmk@gmail.com

Website- www.dpcollege.org

Head

Mrs. Madhuri R. Gulave

M. Sc., B.Ed., NET.

Mobile No. 9894223660

E-mail- jadhuripulave@gmail.com

To,

S. B. Laje Construction & Stone Crusher,

Ap. - Bahirohawadi, Tal. - Karjat,

Dist- Ahmednagar

Subject: - Received grant for Research Project.

Respected Sir,

We are glad to inform you that yours institute assign **Rs. 1000/-** fund for the research project. **Department of geography** gives assurance to you that yours great is fully utilize only for student research project.

Once again thankful to yours well-known institute for kind support.

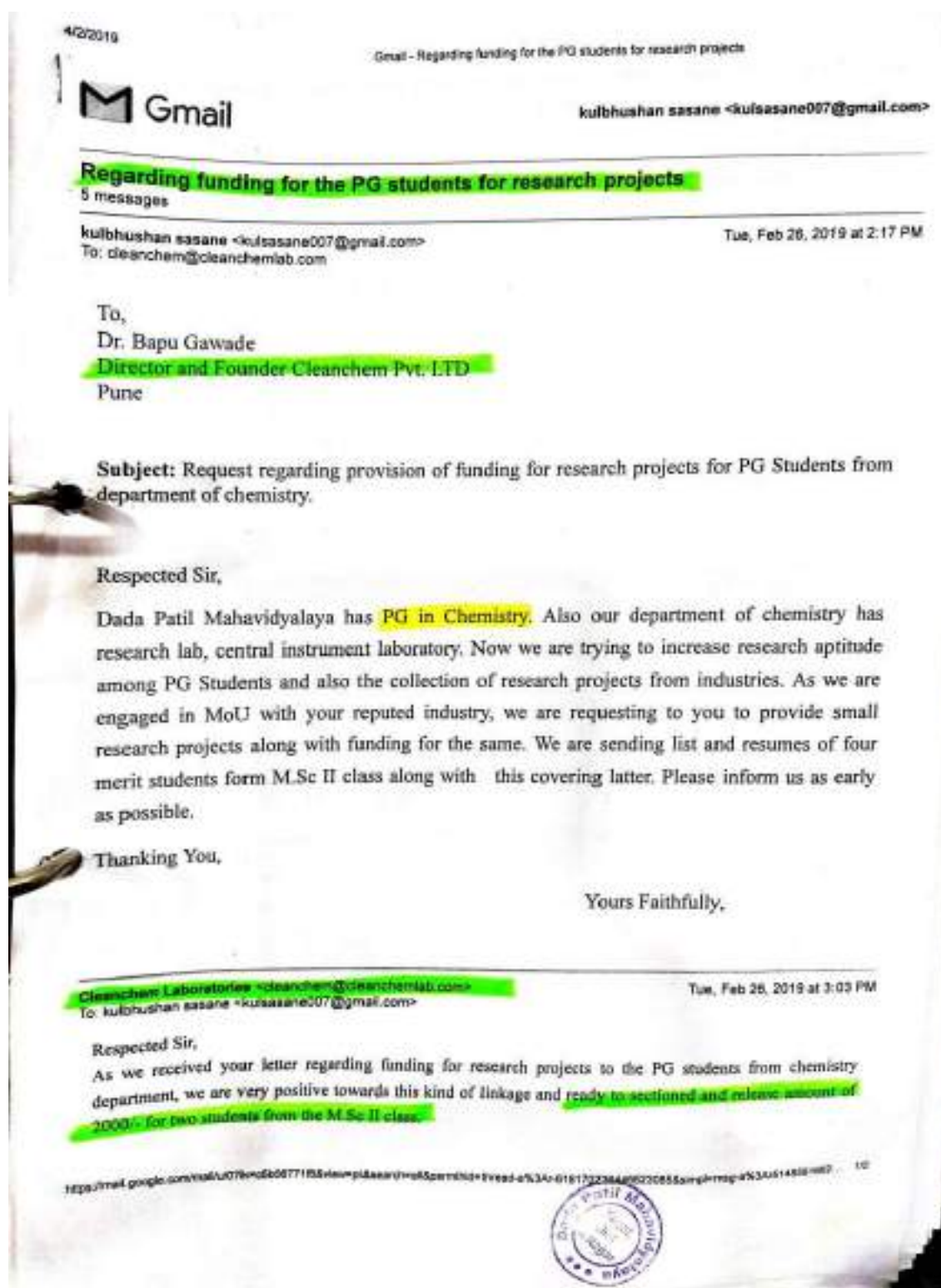
Thanking You,


Head

Department of Geography
Dada Patil Mahavidyalaya Karjat,
Dist.- Ahmednagar



Grant Allotted to PG Students for Project
Funding Agency: Cleanchem Lab, Mumbai
(Above Table No.: 34)



0019

Great - Regarding funding for the PG students for research projects

Please mail us name of the two students, their research project in proper format and bank account detail as early as possible.

[Quoted text hidden]

NOTE: Kindly send sales related inquiries on sales@cleanchemlab.com

Thanks & Regards,

Dr. Bapu Gawade

M.Sc. Ph.D (Chemistry)

(ICT) UDCT Mumbai

Director (Technical and business Development)

Mobile-992189550

Cleanchem Laboratories LLP

Plot No.R-80, 2nd Floor, Prans Instruments, TTC Industrial area, MIDC

Rabale, Navi Mumbai, INDIA 400 791



GST NO: 27AAKPC3593J1Z1

<http://www.cleanchemlab.com/>

Custom Synthesis & Supply

Impurities / Working standards / Metabolites / Speciality chemicals

Unknown Impurity Isolation, Identification / Fragrance & Flavouring agent

Print it only if a need it... Save Paper... Save Trees.  



Tue, Feb 26, 2019 at 3:08 PM

kulbhushan sasane <kulsasane007@gmail.com>
To: Cleanchem Laboratories <cleanchem@cleanchemlab.com>

I will send it soon.
[Quoted text hidden]

Wed, Feb 27, 2019 at 3:54 PM

kulbhushan sasane <kulsasane007@gmail.com>
To: Pathakyoginaj@gmail.com

[Quoted text hidden]

Sat, Mar 2, 2019 at 2:46 PM

kulbhushan sasane <kulsasane007@gmail.com>
To: cleanchem@cleanchemlab.com

As per your mail herewith I am sending following two M. Sc. II year students name.

1. Mr. Ponds Vithal Hanuman
2. Mr. Kojhar Satish Vithal

Please consider above students for funding to their research projects

Bank details

Bank of Maharashtra

A/C: 60317253208

Name: Dr. Sasane Kulbhushan Ashra

IFSC: MAHB001571

[Quoted text hidden]



Grant Allotted to Mr. Nale Sachin A. (M.Sc-II, Dept. of Physics)
Funding Agency: Yogiraj Foundation
(Above Table No.: 35)

The Director,
Yogiraj Foundation,
Pimparkhed,
Tal- Jamkhed,
Dist-Ahmednagar.

To,
The Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist- Ahmednagar.

Subject: Financial support for Research Project.

Sir,

This is to confirm that, our foundation is one of the leading organization in the vicinity of your institution. To motivate and development of research attitude among students from your institution. We are providing financial assistance of Rs. 1000/- for the project of M.Sc-II student **Mr. Nale Sachin Anilush** from **Department of Physics** for his project at M.Sc level this amount will help for his requirement of research project during this academic year 2018-19.

Thanking You,

Yours' Faithfully,



Director,
Yogiraj Foundation



Grant Allotted to Mr. Mohite Akshay V. (M.Sc-II, Dept. of Physics)
Funding Agency: Mr. Akash Deep Mishra, Bank of Maharashtra
(Above Table No.: 36)

Mr. Akash Deep Mishra,
Branch Manager,
Bank of Maharashtra,
Karjat.

To,
The Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist- Ahmednagar.


Subject: Financial support for Research Project.

Sir,

This is to confirm that I Mr. Akash Deep Mishra, recently working as a Branch Manager, Bank of Maharashtra, Karjat Branch and post graduated from Department of Physics Lucknow University, since I have interest in research and also have attachment of Department of Physics of your institution I am providing financial assistance of Rs. 1000/- for the project of M.Sc-II student Mr. Mohite Akshay Vitthal for his project at M.Sc level this amount will help for his requirement of research project during this academic year 2018-19.

Thanking You,

Yours' Faithfully,


Mr. Akash Deep Mishra



Grant Allotted to PG Students for Project
Funding Agency: Dhobe Mushroom Industry
(Above Table No.: 37)

Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya Karjat, Dist-Ahmednagar

Department of Botany-2018-19


Annexure - D- 10

D-10 Grants for research projects sponsored by the non-government sources in the institution during year

- Industry and Organizations – Shri Dhobe Subodh, Owner of the Dhobe Mushroom Industry, Takali Khandeshwari, Tal. – Karjat, Dist. – Ahmednagar has given Rs. 1000/- Grant for the project to Nannaware N.R. (M.Sc. – II)
- Alumni – Dr. Avchar B. K. – Rs. 1000/- is given as a grant for completion of research project to Mr. S. B. Sathar
Title of Project: - Study of secondary metabolites of chili and Tobacco
- X • Any Other – Seed money – Rs – 2,000/- for project sanctioned by the institute to the faculty Mr. Damaji Shelke (M.Sc. – II)

Title of Project - Effect of Different Biofertilizers on Fenugric (*Trigonella foenum-gracum*)




Head
Department of Botany
Dada Patil Mahavidyalaya, Karjat



Grant Allotted to 1. Mr. Vaibhav Sanjay Gosavi; 2. Miss. Bhoje Dipali Krushna
Funding Agency: Bhimabai Gangaram Bagal Sarvjanik Vachnalaya, Nandgav, Karjat
(Above Table No.: 38)



नोंदनी क्र. चहाराह ४५७/२०१७/अहमदनगर

भिमाबाई गंगाराम बागल सार्वजनिक वाचनालय, नांदगांव

मु. पो. नांदगांव, ता. करंजत, जि. अहमदनगर. नो.: १४२३१ ६०३३९. १७६३५ २२४०३.
Email: bhimabaiagalibrary@gmail.com

अॅड. बाळासाहेब बागल
अध्यक्ष
नो.: १४२३१ ६०३३९.

प्रा. भास्कर मोरे
उपाध्यक्ष

अॅड. गर्जेंद्र बागल
सचिव

इंजि. गणेश जगताप
सजिनदार
नो.: १७६३५ २२४०३.

दि. १५/०३/२०१९

प्रति,
मा. प्राचार्य,
दादा फाटील महाविद्यालय,
करंजत, जि. अहमदनगर

विषय - लघु संशोधन प्रकल्पासाठी अर्जित मदतीबाबत.

महोदय,

आम्ही आम्हाला भिमाबाई गंगाराम बागल सार्वजनिक वाचनालय,

नांदगाव माल्यावतीने आपल्या महाविद्यालयातील मराठी विभागातील

विद्यार्थी १. गोसावी वैभवन संजय आणि २. कु. भोजे दिपाळी कृष्णा

यांना लघु संशोधन प्रकल्पासाठी मदत म्हणून रु १०००/- (एक हजार

रुबाय फक्त) देत आहोत. या रकमेच्या स्वीकार करून, निदेशाभिक्रित

लघु संशोधन प्रकल्प करून ज्ञानेत, ही मिळंती.

ठरविले.

आपला विश्वासू,

बागल

अध्यक्ष

भिमाबाई गंगाराम बागल
सार्वजनिक वाचनालय, नांदगाव
ता. करंजत, जि. अहमदनगर

Allowed
to
submit

११/३/१९
16/3/19



Grant Allotted to Miss. Komal Hajare (Physics Students) for Project.
Funding Agency: Mr. Yogesh A. Pathak
(Above Table No.: 39)

Mr. Yogesh Arjun Pathak,
Pimparkhed,
Tal-Jamkhed,
Dist- Ahmednagar.

To,
The Principal,
Dada Patil Mahavidyalaya, Karjat,
Dist- Ahmednagar.

Subject: Financial support for Research Project.

Sir,

This is to confirm that, I Mr. Pathak Yogesh Arjun, recently working as a Assistant Professor at Dada Patil Mahavidyalaya, Karjat, graduated from Department of Physics from the same institution. Since I have affinity with my department and also have interest in research so I am providing financial assistance of Rs. 1000/- for the project of T.Y.B.Sc student Miss. Hajare Komal Labu for his project at T.Y.B.Sc level this amount will help for his requirement of research project during this academic year 2018-19.

Thanking You,

Yours' Faithfully,


Mr. Pathak Yogesh Arjun



3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2017-18

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Sr. No.	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non-Government)
1)	Zinc-Copper (I)-Ultrasound Mediated Conjugate Addition Reaction in Organic Synthesis	Mr. Pise A. S.	Chemistry	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
2)	Use of Green Approach in Organic Synthesis and Speedy Synthesis of Bioactive Heterocycles	Mr. Bhosale V. S.	Chemistry	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
3)	Study of Fish Diversity of Bhima River at Pedagaon, Shrigonda (Ahmednagar District)	Mr. Kumbhar D. S.	Zoology	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
4)	Effects of Different Organic Fertilizer on Growth, Yield and Quality of Capsicum Annum L. Var Pusa Jwala	Mrs. Shendage V. S.	Botany	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
5)	A Study of cottage Industries Run by Women in Karjat Taluka	Mr. Suryawanshi S. K.	Commerce	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government

6)	Study of Socio-Economic Problems of Farmers with Special Reference to Sadanand Deshmukh's Novel Baromaas: Twelve Enduring Months	Mr. Kale R. D.	English	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
7)	Tread Relation between India and China -Year 2016-2017	Mr. Bhondave A. H.	Economics	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
8)	Narendra Mohan Krut Abhanga Gatha: Kathya aur Shilpa	Mr. Thorat B. B.	Hindi	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
9)	Marathi Christi Katha: Ek Abhyas	Dr. Mrs. B. M.	Marathi	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
10)	Jamkhed Talukyatil Kolhati Samajache Lokjivan: Ek Abhyas	Mr. Dhanve V. D.	Marathi	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
11)	Transmission of Data through LiFi Technology	Mr. Burte G. V.	BCS	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
12)	Synthesis and Screening of Biological Active Azoles and Their Application in Drug Synthessi	Mr. Meher Ketan S. (PG Level)	Chemistry	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government

13)	Novel Eco-friendly Methodologies for Synthesis of Imidazole and their Applications in Drug Synthesis	Mr. Bharate T. S. (PG Level)	Chemistry	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
14)	A study of Income and Expenditure of Gram Panchayat of Karjat Tahsil Duration 2015-16	Miss. Thorat L. R. (PG Level)	Economics	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
15)	Chitralakha Upanyas Ki Sanvedana Aur Shilpa	Miss. Pawar R. B. (PG Level)	Hindi	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
16)	Synthesis, Characterization and Biological Evaluation of Novel 1,2-Disubstituted 1,3,4-Oxadiazoles Quinoxaline Pyrido- (2,3,b)-Pyrazine and Pyrazole Moiety	Mr. Ingale A. P.	Chemistry	2017	435000	2 Year	UGC	Government
17)	2005 Nantarchya Nivdak Stree Atmcharitrach Streevadi Drushtine Abhyas	Mrs. Paikerkari S. P.	Marathi	2017	150000	2 Year	UGC	Government
18)	Emergence and Significant of Nationalist Congress Party in Maharashtra Politics	Mr. Jagtap P. M.	Political Science	2017	115000	2 Year	UGC	Government
19)	Fuzzy Transportation Problem by using Monte-Carlo Method	Prof. Mhaske A. S.	Mathematics	2017	150000	2 Year	UGC	Government
20)	Role of District Forum in Solving the Consumers Problems	Mr. Magar Pradeep G.	Commerce	2017	105000	2 Year	UGC	Government

21)	A study of the problems of Milk Producers in Karmala Taluka, Dist-Solapur	Dr. Mr. Navale A. B.	Commerce	2017	100000	2 Year	UGC	Government
Total Amount					11,73,000/-			

Seed Money Staff

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil **Rajal Shikshan Sanstha's** Estd. - 1994



DADA PATIL MAHAVIDYALAYA

(Arts, Commerce and Science)

Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎ (02409) (C) 222534 (R) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)

J. College HSC Board - 12.003.001 Code No. SPPU / AN / ASC / 06 / 1964

Dr. Principal
DR. SANJAY NAGARKAR
 M.A., M.P.H., Ph.D., SET

☉ Savitribai Phule Pune University Best College Award (2004-2005) ☉ Royal Mauli Puraskar (2005-2006)

Date: 06/03/2023

The following 11 (Eleven) Staff were granted Seed Money Project for the FY 2017-18. The said letter is in reference to the seed money project distribution list attached herewith.

Name of the Project/Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/ non-Government)
Zinc-Copper (I)-Ultrasound Mediated Conjugate Addition Reaction in Organic Synthesis	Mr. Pise A. S.	Chemistry	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Use of Green Approach in Organic Synthesis and Synthesis of Bioactive Heterocycles	Mr. Bhosale V. S.	Chemistry	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Study of Fish Diversity of Bhims River at Pedgaon, Shirgonda (Ahmednagar District)	Mr. Kumbhar D. S.	Zoology	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Effects of Different Organic Fertilizer on Growth, Yield and Quality of Capsicum Annum L. Var Pusa Jwala	Mrs. Sherkole V. S.	Botany	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
A Study of cottage Industries Run by Women in Karjat Taluka	Mr. Suryawanshi S. K.	Commerce	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Study of Socio-Economic Problems of Farmers with Special Reference to Sadanand Deshmukh's Novel Baromas: Twelve Enduring Months	Mr. Kale R. D.	English	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Tread Relation between India and China -Year 2016-2017	Mr. Bhondave A. H.	Economics	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government



PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar

Narendra Mohan Krut Abhanga Garba: Kathya aur Shilpa	Mr. Thorat B. B.	Hindi	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Marathi Chisti Katha: Ek Abhyas	Dr. Mrs. B. M.	Marathi	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Jamshed Talakyatil Kollati Samajache Lokjivan: Ek Abhyas	Mr. Dhanve V. D.	Marathi	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Transmission of Data through WIFI Technology	Mr. Bute G. V.	BCS	2017	10000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non- Government
Total Amount				1,10,000/-			




PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar

Seed Money Students



Dr. Sanjay Nagarkar
M.A., M.Phil., Ph.D., SET

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil

Rayat Shikshan Sanstha's

DADA PATIL MAHAVIDYALAYA
(Arts, Commerce and Science)
Karjat, Dist. Ahmednagar - 414 402 (M.S.)

☎(02488) (0) 222534 (0) 222518, Email : dpcollege@yahoo.co.in Website : www.dpcollege.in

NAAC Accreditation (3rd Cycle) 'A' Grade (CGPA 3.07)
In College HSC Board - 12,003,001 Code No. BPPU / AN / ASC / BE / 1964

Estd. - 1964

☛ Savitribai Phule Pune University Best College Award (2004-2005)

☛ Rayat Mauli Puraskar (2005-2006)

Date: 06/03/2023

The following 04 (Four) Staff were granted Seed Money Project for the FY 2017-18. The said letter is in reference to the seed money project distribution list attached herewith.

Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/ non-Government)
Synthesis and Screening of Biological Active Azoles and Their Application in Drug Synthesis	Mr. Meher Ketan S. (PG Level)	Chemistry	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Novel Eco-friendly Methodologies for Synthesis of Imidazole and their Applications in Drug Synthesis	Mr. Bharate T. S. (PG Level)	Chemistry	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
A study of Income and Expenditure of Gram Panchayat of Karjat Tahsil Duration 2015-16	Miss. Thorat L. R. (PG Level)	Economics	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Chitraksha Upanyas Ki Savvedana Aur Shilpa	Miss. Pawar R. B. (PG Level)	Hindi	2017	2000	1 year	Seed Money, Dada Patil Mahavidyalaya, Karjat	Non-Government
Total Amount				1,000/-			




PRINCIPAL
 Dada Patil Mahavidyalaya
 Karjat, Dist. Ahmednagar

Mr. Ingale A. P.



विश्वविद्यालय अनुदान आयोग
University Grants Commission
मंत्रालय, मानव संसाधन विकास विभाग, भारत सरकार
Ministry of Human Resource Development, Govt. of India
उच्च शिक्षण विभाग, नवी दिल्ली, भारत
Western Regional Office, Ganeshkhind, Pune - 411007

Ph: 020 - 25696896, 25696897
Tele Fax: - (020) 25691477
Website: www.ugc.ac.in
Email: mopugwro@gmail.com

No. F. 47-1118/14 (General/ 30/ WRO) XII Plan

Date: 1 MAR 2017

The Drawing and Disbursing Officer,
University Grants Commission,
Pune - 411007.

Subject: RELEASE OF GRANTS TO DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN - 414402 FOR THE YEAR 2016-2017 UNDER PLAN FINANCIAL ASSISTANCE TO TEACHER IN COLLEGES FOR UNDERTAKING MINOR RESEARCH PROJECTS - RELEASE OF FORM 1-22 ALL INDIA.

Sir Madam,

I am directed to convey the sanction of the Commission. The UGC on the recommendations of the Expert Committee has approved the Minor Research Project in the subject of Chemistry entitled "Synthesis, Characterization and Biological Evaluation of Novel 1,2- disubstituted 1, 3,4- oxadiazoles Containing Quinoxaline, Pyrido-(2,3,b) - Pyrazine and Pyrazole Moiety" to be undertaken by Mr. Ingale A. P., of DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR-414402. The financial assistance of the UGC would be limited to Rs. 435000/- (Rupees Four Lakh Thirty Five Thousand only) for a period of two years. An amount of Rs. 305000/- (Rupees Three Lakh Five Thousand only) is presently being sanctioned as the 1st installment Plan expenditure to be incurred during 2016-2017.

(In Rupees)

Non-Recurring Grant for Two years	Amount (Rs)	Recurring grant	1 st Year Amount	2 nd Year Amount	(Comp- General) Grant to be approved as 1 st Inst.
Books & Journals	25000	Contingency	25000	25000	NR 100% Rec. 1 st Year
Equipment	130000	Special Need	0	0	
		Travel/Field work	10000	10000	
		Chemicals & Glassware	75000	75000	
		Others	20000	20000	
Total (Rs)	175000		130000	130000	305000

Total amount for the project: Rs. 435000/-

NOTE:

- For remittance of refund to UGC (WRO), Bank details may be seen at point - 9.
- The grants should be utilized within the time period as specified under the GFR, 2005.
- The University/College/Institution is registered/ mapped with PFMS portal and settled.

1. The sanctioned amount is debitable to the Plan Head 3 (15) and is valid for payment during the financial year 2016-17 only.

Component	Head of A/c	General - In-aid (1)	Capital Assets (15)	Total
General	3(A)	130000	175000	305000/-

2. The amount of the grants shall be drawn by the Drawing & Disbursing Officer, UGC (WRO), Pune on the Grants-in-aid bill and shall be debited to and credited to the Principal of the college through Electronic mode as per the following details:

a. Details (Name & Address) of Accounts Holder:	DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN- 414402
b. Account No.	In.298465958
c. Name & address of Bank Branch	STATE BANK OF INDIA, KARJAT
d. MICR Code	
e. IFSC Code:	SBIN0005913
f. Type of Account:	Saving Account

1. The grant is subject to adjustment on the basis of Utilization Certificate in the prescribed Performa submitted by the University/ College/ Institution.

4. The University/ College shall maintain proper accounts of the expenditure out of the grants, which shall be utilized, only on approved items of expenditure.

2. The University/ institutions may follow the General Financial Rules, 2003 and take urgent necessary action to amend their manuals of financial procedures to bring them in conformity with GFRs, 2003 and those don't have their own approved manuals or financial procedures may adopt the provision of GFRs, 2003 and institutions' guideline there under from time to time.

The Utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to UGC as early as possible after the close of current financial year.

Prof. Ingale
A.P.

K.M. J.

478

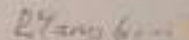
7. The assets acquired wholly or substantially out of UGC's grant, shall not be disposed of or encumbered or utilized for purposes other than those for which the grant was given, without proper sanction of the UGC, and should at any time the College cease to function, such assets shall revert to the University Grants Commission.
8. A Register of the assets acquired wholly or substantially out of the grant shall be maintained by the University/ College in the prescribed proforma.
9. The grantee institution shall ensure the utilization of grants-in-aid for which it is being sanctioned/ paid. In case of non-utilization / part utilization, the simple interest @ 10% per annum as amended from time to time on unutilized amount by the date of drawl to the date of refund as per provision contained in General Financial Rules of Govt. of India will be charged.

In case of unspent balance/refund may be remitted to UGC (WRO) through RTGS as per the following details.

Account Name	Name of Bank and branch name	IFSC Code	Component	Bank Account No
Joint Secretary UGC(WRO), Pune	Canara Bank Model Colony, Pune	CNRIB0000262	General	262101020133

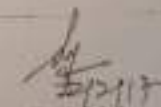
10. Interest earned by the College/Institution against UGC grants, if any, will be treated as an additional grant and must specifically incorporated in the statement of expenditure while submitting it to UGC (WRO).
11. The Univ. College shall follow strictly the Government of India/ UGC's guidelines regarding implementation of reservation policy [both vertical (for SC, ST & OBC) and horizontal (for persons with disability etc.)] in teaching and non-teaching posts.
12. The University/ College shall fully implement the Official Language Policy of Union Govt. and comply with the Official Language Act, 1963 and Official Languages (Use for Official Purposes of the Union) Rules, 1976 etc.
13. The sanction issued in exercise of the delegation of powers vide UGC office order No. 69/2014 [F. No. 10-11/12 (A-15 & 16)] dated 26.3.2014.
14. "The University/ Institution shall strictly follow the UGC Regulations on curbing the menace of Ragging in Higher Education Institutions, 2009" and amendments thereof.
15. The University/ Institution shall take immediate action for its accreditation by National Assessment & Accreditation Council (NAAC), NBA/authorized accreditation body.
16. The accounts of the University/ Institution will be open for audit by the Comptroller & Auditor General of India in accordance with the provisions of General Financial Rules, 2003.
17. The annual accounts i.e. balance sheet, income and expenditure statement and statement of receipts and payments are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.
18. An amount of Rs. _____ out of Rs. _____ has been utilized against this office sanction letter of even dated _____ the _____ of _____ College vide Ref No. _____ dated for the purpose for which it was sanctioned and need to grant in BCR register at Pg. No. 1 & S. No. _____.
19. Future grant will be released on receipt of Statement of Expenditure Utilization Certificate (item-wise).
20. Funds to the extent are available under the Scheme.
21. This issued with the concurrence of IFO vide Diary No. _____ (1/1) dated _____ (N. A.)
22. This issued with the approval of Head of Office.
23. Entry has been made in BCR at Pg. No. 1 & S. No. 70.

Yours faithfully


(Dr. R. Manoj K.)
Deputy Secretary

Copies forwarded for information and necessary action to:

1. THE PRINCIPAL
DADA PATIL MAHAVIDYALAYA, KARJAT,
AHMEDNAGAR, PIN-414402.
2. MR. INGALE A. P., DADA PATIL MAHAVIDYALAYA, KARJAT,
AHMEDNAGAR, PIN - 414402.
3. DIR. FOR INCL. PUNE UNIVERSITY, GANESHBHIND, PUNE, PIN-411007
4. DIRECTOR, HIGHER EDUCATION, CENTRAL BUILDING, NEAR PUNE
RAILWAY STATION, PUNE, PIN- 411001
5. ACCOUNTANT GENERAL, MAHARASHTRA STATE, 401, MAHARSHI KARVE
MARG, MUMBAI- 400020
6. GUARD FILE.


(L. N. Sahu)
Section Officer

Mrs. Paikekari S. P.



विश्वविद्यालय अनुदान आयोग
 University Grants Commission
 भारत सरकार शिक्षा विभाग, नई दिल्ली
 Ministry of Human Resource Development, Govt. of India
 पश्चिम क्षेत्रीय कार्यालय, गानेशखिंद, पुणे- 411007
 Western Regional Office, Ganeshkhind, Pune - 411007

Ph: 020 - 25698296, 2569841
 Tele Fax: - (020) 2569911
 Website- www.ugc.ac.in
 Email: mspgcrw@ugc.gov.in

No. F. 23-1529/14 (General) 91(WRO) XII Plan

Date: 15 MAR 2017

The Drawing and Disbursing Officer,
 University Grants Commission,
 Pune - 411007.

Subject: RELEASE OF GRANTS TO DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN - 414002 FOR THE YEAR 2016-2017 UND XII PLAN FINANCIAL ASSISTANCE TO TEACHER IN COLLEGES FOR UNDERTAKING MINOR RESEARCH PROJECTS - RELEASE - FIRST INSTALLMENT

Sr. Madam,

You directed to convey the sanction of the Commission. The UGC on the recommendations of the Expert Committee has approved the Minor Research Project in the subject of **Marathi** entitled "2005 Nantarchya Nivlak Stree Atmcharittrach Soveranik Unchavite Abhitya" to be undertaken by **Mrs. Paikekari S. P.** of DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN-414002. The financial assistance to the UGC would be limited to Rs. 150000- (Rupees One Lakh Fifty Thousand only) for a period of two years. An amount of Rs. 110000- (Rupees One Lakh Ten Thousand only) is presently being sanctioned as the first installment. Plan expenditures to be incurred during 2016-2017.

On Request

Non-Recurring Grant for Two years	Amount (Rs)	Recurring grant	1 st Year Amount	2 nd Year Amount	(Comp- General) Grant to be approved as 1 st Inst.
Books & Journals	10000	Contingency	20000	20000	NR 100% Rec- 1 st Year
Equipment	40000	Special Staff	0	0	
		Travel/Field work	20000	20000	
		Chemicals & Glassware	0	0	
		Others	0	0	
Total (Rs)	70000		40000	40000	110000

Total amount for the project: Rs. **150000-**

NOTES:

- For avoidance of refund to UGC (WRO), Bank details may be seen at point - 9.
- The grants should be utilized within the time period as specified under the GFR, 2005.
- "The University/College/Institution is registered/ mapped with PTMS portal" and settled.

The sanctioned amount is debitable to the Plan Head 3 (B) and is valid for payment during the financial year 2016-17 only.

Component	Head of Ac.	General - Divided (55)	Capital Acquis (45)	Total
Project	(A)	40000	70000	110000-

The amount of the grants shall be drawn by the Drawing & Disbursing Officer, UGC (WRO), Pune on the Grants-in-aid bill and shall be disbursed to and credited to the Principal of the college through electronic mode as per the following details:

i) Design Name & Address of Account Holder	DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, 414002
ii) Account No.	1629445914
iii) Name & address of Bank Branch	STATE BANK OF INDIA, KARJAT
iv) MICR Code	
v) IFSC Code	SBIN009413
vi) Type of Account	Saving Account

- The bills are subject to adjustment on the basis of Utilization Certificate in the prescribed Form/Annex submitted by the University/College/Institution.
- In all cases, College shall maintain proper accounts of the expenditure out of the grants, which shall be an approved item of expenditure.
- The University/Institution may follow the General Financial Rules, 2005 and take urgent necessary steps to ensure that all financial procedures to bring them in conformity with GFRs, 2005 and those don't have their own approved manuals in financial procedures may adopt the provision of GFRs, 2005 and institutional guideline there under from time to time.
- The Utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to UGC as early as possible after the close of current financial year.



Handwritten signatures and initials: *ATP/12*, *6/11/17*

479

- The assets acquired wholly or substantially out of UGC's grant, shall not be disposed of or encumbered for other purposes other than those for which the grant was given, without proper sanction of the UGC, and should at any time College cease to function, such assets shall revert to the University Grants Commission.
- A Register of the assets acquired wholly or substantially out of the grant shall be maintained by the University/College in the prescribed proforma.
- The grantee institution shall ensure the utilization of grants-in-aid for which it is being sanctioned/ paid. In case non-utilization / part utilization, the simple interest @ 10% per annum as amended from time to time on unutilized amounts from the date of drawl to the date of refund as per provision contained in General Financial Rules of Govt. of India will be charged.

In case of unspent balance/refund may be remitted to UGC (WRO) through RTGS as per the following bank details.

Account Name	Name of Bank and branch name	IFSC Code	Component	Bank Account No.
Joint Secretary UGC(WRO), Pune	Canara Bank Model Colony, Pune	CNRB0000262	General	262101020153

- Interest earned by the College/Institution against UGC grants, if any, will be treated as an additional grant and must be specifically incorporated in the statement of expenditure while submitting it to UGC (WRO).
- The Univ./College shall follow strictly the Government of India/ UGC's guidelines regarding implementation of the reservation policy [both vertical (for SC, ST & OBC) and horizontal (for persons with disability etc.)] in teaching and non-teaching posts.
- The University/ College shall fully implement its Official Language Policy of Union Govt. and comply with the Official Language Act, 1963 and Official Languages (Use for Official Purposes of the Union) Rules, 1976 etc.
- The sanction issued in exercise of the delegation of powers vide UGC office order No. 69/2014 (F. No. 10-11/12 (A) IA & B) dated 26/3/2014.
- The University/ Institution shall strictly follow the UGC Regulations on curbing the menace of Ragging in Higher Education Institutions, 2009* and amendments thereof.
- The University/ Institution shall take immediate action for its accreditation by National Assessment & Accreditation Council (NAAC) NBA/authorized accreditation body.
- The accounts of the University/ Institution will be open for audit by the Comptroller & Auditor General of India in accordance with the provisions of General Financial Rules, 2003.
- The annual accounts i.e. balance sheet, income and expenditure statement and statement of receipts and payments are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.
- An amount of Rs. _____/- out of Rs. _____/- has been utilized against this office sanction letter of even dated _____ by the university/Institute/College vide Ref No. _____ dated _____ for the purpose for which it was sanctioned and noted in grant in the BCR register at Pg. No. 1 & S. No. _____.
- Future grant will be released on receipt of Statement of Expenditure Utilization Certificate (Item-wise).
- Funds to the extent are available under the Scheme.
- This issue with the concurrence of IFD vide Diary No. _____ (IFD) dated _____ (N.A.)
- This issue with the approval of Head of Office.
- Entry has been made in BCR at Pg. No. 1 & S. No. 91.

Yours faithfully

(Signature)
 (Dr. G. Srinivas)
 Joint Secretary
 22/2/12

Copies forwarded for information and necessary action to:

- 1. THE PRINCIPAL, DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR -414402.
- 2. MRS. PADEKARI S. P., DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN -414402.
- 3. DIRECTOR (BCU), PUNE UNIVERSITY, GANESHBHUND, PUNE, PIN- 411007
- 4. DIRECTOR, HIGHER EDUCATION, CENTRAL BUILDING, NEAR PUNE RAILWAY STATION, PUNE, PIN- 411001
- 5. ACCOUNTANT GENERAL, MAHARASHTRA STATE, 101, MAHARASHI KARVE MARG, MUMBAI- 400020
- 6. GUARD-FILE

(Signature)
 (J. N. Sahu)
 Section Officer

BCU	
S. No.	91
P.T.	7-10-12

Mr. Jagtap P. M.



विश्वविद्यालय अनुदान आयोग
University Grants Commission
एनए नगर, दिल्ली, भारत
Ministry of Human Resource Development, Govt. of India
एनए नगर, दिल्ली, भारत 110002
Western Regional Office, Ganeshkhind, Pune - 411007

Ph. 020 - 25090890, 25096897
Tels. Fax. - (020) 25091477
Website- www.ugc.ac.in
Email- mspgugrow@gmail.com

No. F. 23-1803/14 (General) 90(WRO) XII Plan

Date: 15 MAR 2017

The Drawing and Disbursing Officer,
University Grants Commission,
Pune - 411007.

Subject: RELEASE OF GRANTS TO DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN-414402 FOR THE YEAR 2016-2017 UNDER PLAN FINANCIAL ASSISTANCE TO TEACHER IN COLLEGE FOR UNDERTAKING MINOR RESEARCH PROJECTS - RELEASE OF FIRST INSTALLMENT.

Sir/Madam,

I am directed to convey the sanction of the Commission. The UGC on the recommendations of the Expert Committee has approved the Minor Research Project in the subject of Political Science titled "Emergence and Significance of Nationalist Congress Party in Maharashtra politics" to be undertaken by Mr. Jagtap P. M. of DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, PIN-414402. The financial assistance of the UGC would be limited to Rs. 115000/- (Rupees One Lakh Fifteen Thousand only) for a period of two years. An amount of Rs. 75000/- (Rupees Seventy Five Thousand only) is presently being sanctioned as the first installment Plus expenditure to be incurred during 2016-2017.

(In Rupees)

Non-Recurring Grant for Two years	Amount (Rs.)	Recurring grant	1 st Year Amount	2 nd Year Amount	(Comp- General) Grant to be approved as 1st Inst.
Books & Journals	35000	Cum gratuity	10000	10000	NR 100% Rec. 1 st Year
Equipment	0	Special Need	5000	5000	
		Travel Field work	25000	25000	
		Chemicals & Glassware	0	0	
		Others	0	0	
Total (Rs.)	35000		40000	40000	75000

Total amount for the project: Rs. 115000/-

NOTE:

- For verifications of refund to UGC (WRO), Bank details may be seen at point - 9.
- The grants should be utilized within the time period as specified under the GFR, 2005.
- "The University/College/Institution is registered/ mapped with PFMS portal" and settled.

1. The sanctioned amount is debitable to the Plus Head 3 (31) and is valid for payment during the financial year 2016-17 only.

Commitment	Head of A/C	General - In-aid (31)	Capital Assets (35)	Total
Expense	3(A)	40000	35000	75000

2. The amount of the grant shall be drawn by the Drawing & Disbursing Officer, UGC (WRO), Pune on the Grant-in-aid bill and shall be disbursed to and credited to the Principal of the college through Electronic mode as per the following details:

a	Details (Name & Address) of Account Holder:	DADA PATIL MAHAVIDYALAYA, KARJAT, AHMEDNAGAR, 414402
b	Account No.:	30298465938
c	Name & address of Bank Branch:	STATE BANK OF INDIA, KARJAT
d	MICR Code:	
e	IFSC Code:	SBIN0005911
f	Type of Account:	Saving Account

3. The grant is subject to adjustment on the basis of Utilization Certificate in the prescribed Proforma submitted by the University/ College/ Institution.

4. The University/ College shall maintain proper accounts of the expenditure out of the grants, which shall be submitted on approved forms of expenditure.

5. The University/ Institution may follow the General Financial Rules, 2003 and take urgent necessary action in respect of financial procedures to bring them in conformity with GFRs, 2005 and those who don't have their own financial procedures may adopt the provision of GFRs, 2003 and instructions/ guideline there under from time to time.

6. The Utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to UGC as early as possible after the close of current financial year.

Handwritten signature and date:
15/3/17



477

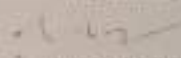
7. The assets acquired wholly or substantially out of UGC's grant, shall not be disposed of or encumbered or utilized for purposes other than those for which the grant was given, without proper sanction of the UGC, and should at any time the College ceases to function, such assets shall revert to the University Grants Commission.
8. A Register of the assets acquired wholly or substantially out of the grant shall be maintained by the University/College in the prescribed proforma.
9. The grantee institution shall ensure the utilization of grants-in-aid for which it is being sanctioned/ paid. In case non-utilization / part utilization, the simple interest @ 10% per annum on amount not availed from time to time on unutilized amount from the date of draw to the date of refund as per provision contained in General Financial Rules of Govt. of India will be charged.

In case of unspent balance/ refund may be remitted to UGC (WRO) through RTGS as per the following bank details.

Account Name	Name of Bank and branch name	IFSC Code	Component	Bank Account No.
Joint Secretary UGC(WRO), Pune	Canara Bank Model Colony, Pune	CN000000262	General	262101020153

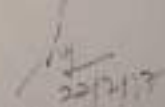
10. Interest earned by the College/Institution against UGC grants, if any, will be treated as an additional grant and must be specifically incorporated in the statement of expenditure while submitting it to UGC (WRO).
11. The Univ./College shall follow strictly the Government of India/UGC's guidelines regarding implementation of the reservation policy [Both vertical (for SC, ST & OBC) and horizontal (for persons with disability etc.)] in teaching and non-teaching posts.
12. The University/College shall fully implement its Official Language Policy of Union Govt. and comply with the Official Language Act, 1963 and Official Languages (Use for Official Purposes of the Union) Rules, 1976 etc.
13. The sanction issues in exercise of the delegation of powers vide UGC office order No. 09/2014 (F.No. 10-1102 (Adm. IA & B)) dated 26/3/2014.
14. "The University/Institution shall strictly follow the UGC Regulations on curbing the menace of Ragging in Higher Education Institutions, 2009" and amendments thereof.
15. The University/Institution shall take immediate action for its accreditation by National Assessment & Accreditation Council (NAAC), MHA/authorized accreditation body.
16. The accounts of the University/Institution will be open for audit by the Comptroller & Auditor General of India in accordance with the provisions of General Financial Rules, 2005.
17. The annual accounts (i.e. balance sheet, income and expenditure statement and statement of receipts and payments) are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.
18. The amount of Rs. _____ out of Rs. _____ has been received against this office sanction letter of even date _____ by the university/institute/College vide Ref No. _____ dated _____ for the purpose for which it was sanctioned and noted in grant in all DCR registers at Pg No. 1 & S. No. _____
19. Future grants will be released on receipt of Statement of Expenditure Utilization Certificate (Item-wise).
20. Funds to the extent are available under the Scheme.
21. This issues with the concurrence of IED vide Duesy No. _____ (IED) dated _____ (N.A.)
22. This issues with the approval of Head of Office.
23. Copy has been made in DCR at Pg. No. Y & S. No. 90

Yours faithfully


Dr. G. Srivastava
Joint Secretary

Copies forwarded for information and necessary action to:


1. THE PRINCIPAL,
DADA PATHI MAHAVIDYALAYA, KARJAT, AHMEDNAGAR -41402.
2. MR. JAGTAP P. SE, DADA PATHI MAHAVIDYALAYA, KARJAT,
AHMEDNAGAR, PIN -41402.
3. DIRECTOR (RCUB), PUNE UNIVERSITY, GANESHKHIND,
PUNE, PIN- 411007.
4. DIRECTOR, HIGHER EDUCATION, CENTRAL BOARDING, NEAR PUNE RAILWAY
STATION, PUNE, PIN- 411001
5. ACCOUNTANT GENERAL, MAHARASHTRA STATE, (H), MAHARSHI KARVE MARG,
MUMBAI - 40020
6. GUARD FILE.


J. N. Sabu
Section Officer

D.S	
S. No.	90
P. J.	06/04/17

Prof. Mhaske A. S.

Estd. 1964



DADA PATIL MAHAVIDYALAYA
Karjat, Dist. A'nagar - 414 402. (M.S.)
(ARTS, COMMERCE & SCIENCE)
Founder : Padmbhushan Dr. Karmaveer Bhaurao Patil

Recognized by NAAC
B Grade (C.G.P.A.28)
A College HOD, Bham: 13,003,001
Code No: SPPU / AN / ACC / 06 / 1984

STD Code: (02489)
Office: 222534
Res.: 222518
Fax No.: 223823
E-mail: dpcollege@ymailho.in
Website: WWW.dpcollege.org

PRINCIPAL
Dr. Bal Kamble
M.A., M.PHIL., Ph.D.

© Savitribai Phule Pune University Best College Award (2004-05) © Rajawade Puraskar (2005-06)

Ref. No. : 577/17-18 Date : 28/12/2017

To,
The Deputy Secretary,
University Grants Commission
Bahadurshah Zafar Marg
New Delhi, 110002

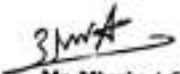
Sub :- Submission of final report of Minor Research Project of
Mr. Mhaske Ashok Sahebrao the subject of Mathematics.
Ref.No. 47-883/14 (WRO), Dated 20/02/2015


R/Sir,


I am submitting herewith two bound copies and one CDs (enclosed with the bound copies) of final report of the Minor Research Project of **Mr. Mhaske Ashok Sahebrao** in the Department of Mathematics. The Minor Research Project entitled **"FUZZY TRANSPORTATION PROBLEM BY USING MONTE CARLO METHOD"** has been carried out by Mr. Mhaske Ashok Sahebrao (Principal Investigator). Please note that the summary of the findings has been attached to the college website. Also a copy of the final report is kept in the departmental library as well as college library. The following documents are attached herewith:

- 1) Utilization Certificate for Total / Utilized Grant
- 2) Statement of expenditure
- 3) Project Completion Report (PCR)
- 4) Assets Certificate
- 5) Accession Certificate
- 6) Statement of expenditure incurred on fieldwork, Contingency and Others
- 7) Summary of the MRP
- 8) Declaration of the P.I.
- 9) Uploading Certificate of the Principal



Thanking you.


Mr. Mhaske A.S.
Principal Investigator



Yours faithfully,

Principal
Dada Patil Mahavidyalaya,
Karjat, Dist-Ahmednagar

Encl :- As above.

विश्वविद्यालय अनुदान आयोग
University Grants Commission
मानव संसाधन विकास मंत्रालय, भारत सरकार
Ministry of Human Resource Development, Govt. of India
पश्चिम विभागीय कार्यालय गणेशखिंड, पुणे- ४११००७
Western Regional Office, Ganeshkhind, Pune - 411007

No. F. 47-883/14 (WRO)

Ph: 020 - 25696896, 25696897,
Fax: 020 - 25691477
Website- www.ugc.ac.in
Email: wrougc@gmail.com

The DDO,
University Grants Commission,
Pune - 411007.

20 MAR 2015

**Subject: Financial assistance to college teachers for undertaking Minor Research Projects -
Release of first installment during XIIth Plan.**

Sir/Madam,

I am directed to convey the sanction of the Commission. The UGC on the recommendations of the Expert Committee has approved the Minor Research Project in the subject of Mathematics entitled "Fuzzy Transportation Problem by using Monte Carlo Method" to be undertaken by Prof. Mhaske A. S., of DADA PATIL MAHAVIDYALAYA, KARJAT, KARJAT, AHMEDNAGAR-414402. The financial assistance of the UGC would be limited to Rs. 150000 for a period of two years and convey an "on account grant" of 1st Installment of Rs 105000/- (Rupees One lakh five thousand only) is presently being sanctioned as the first installment.

Non-Recurring Grant for Two years	Amount (Rs)	Recurring grant	1 st Year Amount	2 nd Year Amount	Grant to be approved as 1st Inst.
Books & Journals	30000	Contingency	20000	20000	NR 100% Rec. 1 st Year
Equipment	30000	Special Need	0	0	
		Travel/Field work	15000	15000	
		Chemicals & Glassware	0	0	
		Others (Hiring services)	10000	10000	
Total (Rs.)	60000		45000	45000	105000
Total Allocation (NR+Rec)	150000				

NOTE:

- The grants should be utilized within the time period as specified under the GFR, 2005

The grant is subject to the terms and conditions as mentioned below.

- The project should be implemented as per the UGC guidelines of scheme for Minor Research Project which are available on UGC website i.e. www.ugc.ac.in.
- The sanctioned amount is debitable to the Plan Head 3 (31) and is valid for payment during the financial year 2014-15 (for DDO)


Sr. No	Component	Head of A/c 3(31)	Amount
1.	General Component 76%	3(A)	105000
2.	SC 16%	3(B)	
3.	ST 8%	3(C)	



401

16. The accounts of the University/ Institution will be open for audit by the Comptroller & Auditor General of India in accordance with the provisions of General Financial Rules, 2005.
17. The annual accounts i.e. balance sheet, income and expenditure statement and statement of receipts and payments are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.
18. An amount of Rs. /- out of Rs. /- has been utilized against this office sanction letter of even dated by the university/Institute/College vide Ref No. dated for the purpose for which it was sanctioned and noted in grant in aid/ BCR register at Pg. No. 1 & S. No.
19. Future grant will be released on receipt of Statement of Expenditure Utilization Certificate (Item-wise).
20. Funds to the extent are available under the Scheme.
21. This issues with the concurrence of IFD vide Diary No. (IFD) dated (N. A.)
22. This issues with the approval of Head of Office.
23. Entry has been made in BCR at Pg. No. 1 & S. No. 208

Yours faithfully


(Naresh Pal Meena)
Education Officer

Copies forwarded for information and necessary action to:

1. THE PRINCIPAL,
DADA PATIL MAHAVIDYALAYA, KARIAT KARIAT,
AHMEDNAGAR -414402.
2. MR. KHAN M. R., DADA PATIL MAHAVIDYALAYA, KARIAT,
KARIAT, AHMEDNAGAR -414402.
3. DIRECTOR (BCUD), PUNE UNIVERSITY, GANESHKHIND, PUNE-
411007
4. DIRECTOR, HIGHER EDUCATION, CENTRAL BLDG, PUNE
5. ACCOUNTANT GENERAL, MAHARASHTRA STATE, MUMBAI
6. GUARD FILE.


(L. N. Sahu)
Section Officer

To.
Shri: V.A. Meshale



Subject: Submission for MRP Acceptance certificate of following teachers.

From: UGC WRO (mrpugwro@gmail.com)

To: dpcollege@yahoo.co.in;

Date: Monday, 23 February 2015 2:18 PM

Sir/Madam,

With reference to your college proposal(s) submitted to this office for Minor Research Project of respective teacher.

I am directed to convey the approval of the UGC for Minor Research Project to your college teacher(s), please see the attachment. You may send the acceptance certificate as per annexure II (copy enclosed) duly forwarded by the principal of the college along with acceptance of the condition governing the research project to this office by email at mrpugwro@gmail.com and also send a copy through speed post immediately, so that the grant can be released before 31st March 2015.

Yours faithfully

(Naresh Pal Moena)

Education Officer

File no.	Subject	Name of the P. I
47-883/14	Mathematics	Prof. M. S. A. S.
43-915/14	Zoology	Mr. Khan M. R.

College Name

DADA PATIL MAHAVIDYALAYA

Cky.

KARIAT

Allocation

150000

DADA PATIL MAHAVIDYALAYA

KARIAT

170000

M. Moena
(Signature)


AT

24/2/15



463

Mr. Magar Pradeep G.

**PRINCIPAL**
Dr. Bal Kamble
M.A., M.Phil., Ph.D.

Estd. 1964
Rajawade Sanshodhan Mandal
DADA PATIL MAHAVIDYALAYA
Karjat, Dist. A'nagar - 414 402. (M.S.)
(ARTS, COMMERCE & SCIENCE)
Founder : Padmbhushan Dr. Karmaveer Bhaurao Patil

Recognized By HVA
B Grade (C.G.P.A.)
J. College HBC Board - 12 003.0
Code No. SPPU/AN/ASC/38/18
STD Code: (02486)
Office : 222534
Res. : 222516
Fax No. : 223923
E-mail : dpcollege@yahoo.co.in
Website : WWW.dpcollege.org

o Savitribai Phule Pune University Best College Award (2004-05) o Rajawade Paraskar (2005-06)

Ref. No. : 576/12-18 Date : 28/12/2017

To,
The Deputy Secretary,
University Grants Commission
Bahadurshah Zafar Marg
New Delhi. 110002

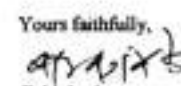
Sub :- Submission of final report of Minor Research Project of
Mr. Magar Pradeep Gopinath the subject of Commerce.
Ref.No. 23-130/12(WRO), Dated 05/02/2013


R/Sir,

I am submitting herewith two bound copies and one CDs (enclosed with the bound copies)
of final report of the Minor Research Project of Mr. Magar Pradeep Gopinath in the Department
of Commerce. The Minor Research Project entitled **"ROLE OF DISTRICT FORUM IN
SOLVING THE CONSUMERS PROBLEM"** has been carried out by Mr. Magar Pradeep
Gopinath (Principal Investigator). Please note that the summary of the findings has been attached
to the college website. Also a copy of the final report is kept in the departmental library as well as
college library. The following documents are attached herewith:




- 1) Utilization Certificate for Total / Utilized Grant
- 2) Statement of expenditure
- 3) Project Completion Report (PCR)
- 4) Asses Certificate
- 5) Accession Certificate
- 6) Statement of expenditures incurred on fieldwork, Contingency and Others
- 7) Summary of the MRP
- 8) Declaration of the P.I.
- 9) Uploading Certificate of the Principal

Thanking you.

Yours faithfully,

Principal
Dada Patil Mahavidyalaya,
Karjat, Dist-Ahmednagar


Mr. Magar P.G.
Principal Investigator

Incl :- As above.

UNIVERSITY GRANTS COMMISSION
WESTERN REGIONAL OFFICE
GANESHKHIND, PUNE - 411007

File No: 23-130/12(WRO)

Phones: (020) 2569147,
25691178, 2569689
Fax: (020) 256914
Web site: www.ugc.ac

The Accounts Officer
University Grants Commission
Ganeshkhind, Pune-411007.

Subject: Financial assistance to college teachers for undertaking Minor Research Projects -Release of first installment during XIIth Plan.

Sir/Madam,

The UGC on the recommendations of the Expert Committee has approved the Minor Research Project entitled "Role of District Forum in Solving the Consumers problem" in the subject Commerce to be undertaken by **Mr. Manoj P. G. DADA PATIL MAHAVIDYALAYA, KARJAT, KARJAT, AHMEDNAGAR-414 402**. The financial assistance of the UGC would be limited to Rs. 105000/- (Rupees Only) for a period of two years. An amount of Rs. 72500/- (Rupees Only) is presently being sanctioned as the first installment.

Non-Recurring Grant for Two years	Amount (Rs)	Recurring grant	1 st Year Amount	2 nd Year Amount	Head of ac
Books & Journals	15000	Contingency	15000	15000	4(iv)b (For General)
Equipment	25000	Special Need	0	0	1.B(i)h(i)b (For SC)
		Travel/Field work	17500	17500	1.B(i)h(i)b (For ST)
		Chemicals & Glassware	0	0	
		Others	0	0	
Total (Rs.)	40000		32500	32500	

Total amount for the project: Rs. 105000/-

The grant is subject to the terms and conditions as mentioned below.

1. A **Certificate of Acceptance** of the conditions governing the research project should be sent immediately to this office.
2. The amount of the grant shall be drawn by the Accounts Officer (D.D.O), University Grants Commission on the grant-in-aid bill and shall be disbursed to and credited to the above mentioned institute through D.D./ RTGS Confirmation No/ NEFT/ Transfer No.
3. The sanctioned amount is debutable to the Major Head 4(iv)b(For General), 1.B(i)h(i)b (For SC), 1.B(i)h(i)b (For ST) and is valid for payment during the financial year 2012 -2013 only.
4. The grant is subject to adjustment on the basis of Utilization Certificate in prescribed proform submitted by University/College/Institute.

NOTE:

1. The grant shall not be used self-financial/ non-grant/unaided courses & teachers.
2. Date of implementation will be the date of sanction of first installment.
3. The researcher is required to submit an Acceptance Certificate of the project in the enclosed format to the affiliating university, which would then be sent to UGC (WRO) in a bunch by the University.

4. Please send one copy of the project completion report to Director, INFLIBNET, Gujarat University Campus, Navrangpura, Ahmedabad for record.

5. The statement of expenditure incurred and brief interim progress report relating to the project is to be sent in the prescribed form to this office after completion of one year. Annual utilization certificate of full-allocated amount, audited statement of expenditure and final project report be submitted immediately after completion of the project.
6. The assets acquired wholly or substantially out of UGC grant shall not be disposed off, encumbered or utilized for purposes other than those for which the grant was given, without proper sanction of the UGC, Western Regional Office, Pune- 07 and should at any time the college cease to function, such assets shall revert to UGC.
7. A register of the assets acquired wholly or substantially out of the grant shall be maintained by the University/College in the prescribed form.
8. The University/College shall strictly follow all the instructions issued by the Govt. of India from time to time with regard to reservation of posts for SC/ST/OBC.
9. The interest earned by the University/College/Institute will be treated as additional grant and is required to be incorporated in the U.C./Statement of Expenditure submitted to UGC, (WRO).
10. The University/College shall fully implement the office Language Policy of the Union Govt. and comply with the official Language Act, 1963 and Official language (use for official purposes of the Union) Rules, 1976 etc.
11. The sanction issues in exercise of the delegation of powers vide Commission office order No.592 dated may 01, 1992.
12. The funds to the extent are available under the scheme.
13. The grantee institution shall ensure the Utilization of grants-in-aid for which it is being sanctioned /paid. In case non-utilization/ part utilization, simple interest @ 10% per annum amended from time to time on unutilized amount from the date draw/to date of refund as per provisions contained in general financial Rules of Govt. of India will be charged.

Yours faithfully,


(Dr. G. Srinivas,
Joint Secretary

Copy to:

1. THE PRINCIPAL
DADA PATIL MAHAVIDYALAYA, KARIAT KARIAT,
AHMEDNAGAR -414 402.
2. MR. MAGAR P. G., DADA PATIL MAHAVIDYALAYA KARIAT,
KARIAT-AHMEDNAGAR -414 402.
3. DIRECTOR (BCUD), PUNE UNIVERSITY, GANESHKHIND, PUNE-
411007
4. DIRECTOR, HIGHER EDUCATION, CENTRAL BLDG, PUNE - 01
5. ACCOUNTANT GENERAL, MAHARASHTRA STATE, MUMBAI
6. GUARD FILE.

(Dr. G. Srinivas)
Joint Secretary

Mr. Navale A. B.

 Estd. 1964

Encl. :- **DADA PATIL MAHAVIDYALAYA**
Karjat, Dist. A'nagar - 414 402. (M.S.)
(ARTS, COMMERCE & SCIENCE)
Founder : Padimbhushan Dr. Karmaveer Bhaurao Patil

Reaccredited By NAAC
B' Grade (C.G.P.A.2E)
Jr. College HSC Board - 12,000.00
Code No. SPPU / AN / ASC / 06 / 198

STD Code: (02489)
Office : 222534
Res. : 22251E
Fax No. : 223923
E-mail : dpcollege@yahoo.co.in
Website : WWW.dpcollege.org

PRINCIPAL
Dr. Bal Kamble
M.A., M.Phil., Ph.D.

o Savitribai Phule Pune University, Best College Award (2004-05) o Rayat Mauli Puraskar (2005-06)

Date : 28/12/2017

Ref. No. : 575/12-18

To,
The Deputy Secretary,
University Grants Commission
Bahadurshah Zafar Marg
New Delhi. 110002

Sub :- Submission of final report of Minor Research Project of
Mr. Navale Ashok Bhanudas the subject of Commerce.
Ref.No. 23-576/12 (WRO), Dated 07/03/2013


R/Sir,


I am submitting herewith two bound copies and one CDs (enclosed with the bound copies) of final report of the Minor Research Project of Mr. Navale Ashok Bhanudas in the Department of Commerce. The Minor Research Project entitled "A Study of the Problems of Milk Producers in Karmala Taluka Dist. Solapur" has been carried out by Mr. Navale Ashok Bhanudas (Principal Investigator). Please note that the summary of the findings has been attached to the college website. Also a copy of the final report is kept in the departmental library as well as college library. The following documents are attached herewith:


- 1) Utilization Certificate for Total / Utilized Grant
- 2) Statement of expenditure
- 3) Project Completion Report (PCR)
- 4) Assets Certificate
- 5) Accession Certificate
- 6) Statement of expenditure incurred on fieldwork, Contingency and Others
- 7) Summary of the MRP
- 8) Declaration of the P.I.
- 9) Uploading Certificate of the Principal


Thanking you.


Yours faithfully,


Mr. Navale A. B.
Principal Investigator


Principal
Dada Patil Mahavidyalaya,
Karjat, Dist-Ahmednagar







UNIVERSITY GRANTS COMMISSION
WESTERN REGIONAL OFFICE
GANESHKHIND, PUNE - 411007

Phones: (020) 2569147,
25691178, 25696397
Fax: (020) 256947
Web site: www.ugc.ac.in

File No: 23-576/12(WRO)

The Accounts Officer
University Grants Commission
Ganeshkhind, Pune-411007.

7 MAR 2013

Subject: Financial assistance to college teachers for undertaking Minor Research Projects - Release of first installment during XIIth Plan.

Sir/Madam,

The UGC on the recommendations of the Expert Committee has approved the Minor Research Project in the subject of Commerce entitled "A Study of the Problems of Milk Producers in Karmala Taluka Dist-Solapur" to be undertaken by Dr. Mr. Navale V. E. of DADA PATIL MAHAVIDYALAYA, KARJAT, KARJAT, AHMEDNAGAR-414 402. The financial assistance of the UGC would be limited to Rs. 100000/- (Rupees Only) for a period of two years. An amount of Rs. 60000/- (Rupees Only) is presently being sanctioned as the first installment.

Non-Recurring Grant for Two years	Amount (Rs)	Recurring grant	1 st Year Amount	2 nd Year Amount	Head of a/c
Books & Journals	20000	Contingency	20000	20000	4(iv)b (For General) 1.B(i)(i)b (For SC) 1.B(i)(i)b (For ST)
Equipment	0	Special Need	0	0	
		Travel/Field work	15000	15000	
		Chemicals & Glassware	0	0	
		Others	5000	5000	
Total (Rs.)	20000		40000	40000	

Total amount for the project: :- 100000/-

The grant is subject to the terms and conditions as mentioned below.

1. A Certificate of Acceptance of the conditions governing the research project should be sent immediately to this office.
2. The amount of the grant shall be drawn by the Accounts Officer (D.D.O), University Grants Commission on the grant-in-aid bill and shall be disbursed to and credited to the above mentioned institute through D.D./ RTGS Confirmation No/ NEFT/ Transfer No.
3. The sanctioned amount is debatable to the Major Head 4(iv)b (For General), 1.B(i)(i)b (For SC), 1.B(i)(i)b (For ST) and is valid for payment during the financial year 2012-2013 only.
4. The grant is subject to adjustment on the basis of Utilization Certificate in prescribed format submitted by University/College/Institute.

NOTE:

1. The grant shall not be used self-financed/ non-grant/ aided courses & teachers.
2. Date of implementation will be the date of sanction of first installment.
3. The researcher is required to submit an Acceptance Certificate of the project in the enclosed format to the affiliating university, which would then be sent to UGC (WRO) in a bunch by the University.

Dr. Navale
atkar

USS

4. Please send one copy of the project completion report to Director, INFLIBNET Gujarat University Campus, Navrangpura, Ahmedabad for record.
5. The statement of expenditure incurred and brief academic progress report relating to the project is to be sent in the prescribed format to this office after completion of one year. An utilization certificate of full-allocated amount, audited statement of expenditure and project report be submitted immediately after completion of the project.
6. The assets acquired wholly or substantially out of UGC grant shall not be disposed of, encumbered or utilized for purposes other than those for which the grant was given, with proper sanction of the UGC, Western Regional Office, Pune- 07 and should at any time college cease to function, such assets shall revert to U.G.C.
7. A register of the assets acquired wholly or substantially out of the grant shall be maintained in the University/College in the prescribed form.
8. The University/College shall strictly follow all the instructions issued by the Govt. from time to time with regard to reservation of posts for SC/ST/OBC.
9. The interest earned by the University/College/Institute will be treated as additional grant - is required to be incorporated in the U.C./Statement of Expenditure submitted to UGC. (WR)
10. The University/College shall fully implement the office Language Policy of the Union Govt and comply with the official Language Act, 1963 and Official language (use for office purposes of the Union) Rules, 1976 etc.
11. The sanction issues in exercise of the delegation of powers vide Commission office order No.5/92 dated may 01, 1992.
12. The funds to the extent are available under the scheme.
13. The grantee institution shall ensure the Utilization of grants-in-aid for which it is being sanctioned /paid. In case non-utilization/ part utilization, simple interest @ 10% per annum accrued from time to time on unutilized amount from the date due/to date of refund as per provisions contained in general financial Rules of Govt. of India will be charged.

Yours faithfully

(Dr. G. Sriniva)
Joint Secretary

Copy to:

1. THE PRINCIPAL
DADA PATIL MAHAVIDYALAYA, KARJAT KARJAT,
AHMEDNAGAR -414 402.
2. DR. MR. NAVALE A. B., DADA PATIL MAHAVIDYALAYA
KARJAT, KARJAT, AHMEDNAGAR -414 402.
3. DIRECTOR (BCUD), PUNE UNIVERSITY, GANESHKHIND, PUNE-
411007
4. DIRECTOR, HIGHER EDUCATION, CENTRAL BLDG, PUNE
5. ACCOUNTANT GENERAL, MAHARASHTRA STATE, MUMBAI
6. GUARD FILE.

(Dr. G. Sriniva)
Joint Secretary